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ORIGINAL LECTURES.

IMPERFORATE URETHRA—EXCISION OF THE SUPERIOR MAXILLA—REMOVAL OF AN ENORMOUS HAIR MOLE FROM THE FOREHEAD.

A Clinical Lecture Delivered at the Mercy Hospital, Chicago,

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We have here an unusual case. This patient is only eight hours old, and is brought here because the urethra is imperforate. Examining the end of the penis, the mucous membrane extends smooth and glistening over the end of the glans without a sign of an opening where the meatus should be. However, if I compress it laterally so as to throw the surface into wrinkles, there is a slight depression at the proper place for a meatus. Absence of the urethral canal is generally due to hypospadias, in which case the channel is not strictly non-existent, but is only uncovered, from the non-development of its floor, so that it is an open groove. In this case, however, the parts are anatomically finished, so to speak, but the canal was either never formed or it has become obliterated in utero. You will, however, bear in mind that just as the prepuce is sometimes found congenitally adherent to the glans, so we may suppose the walls of the urethra to be in some cases adherent to each other. The surgical literature of this subject is exceedingly scanty, because the cases are few. It is asserted by authors that new-born infants may die of the obstruction. Obviously our duty is first to see whether this may be a mere adhesion of the urethral walls, capable of being separated. If so, we may avoid any more serious operation. You will notice incidentally that this patient, though only eight hours old, takes its ether exactly like an adult, and seems to require fully as much anæsthetic in proportion to its size as any older person.

If I now take a large probe and sweep it along the fold which marks the site of the obliterated meatus, using some firmness of pressure, I find the parts separate under the effort, and a true meatus appears without a drop of blood being shed. Selecting now a metallic sound somewhat conical at the tip, but still blunt, and of the size of No. 2 of the English catheter scale, I press it into the meatus. There is considerable resistance, but holding the glans firmly, and pressing the tip slowly on in the line where the urethra should be, I find the instrument gradually advancing, and no blood flows. We seem to be separating adhesions rather than perforating tissues. The force required is a good deal, and there is doubtless risk of making a false passage, but that will not be an irreparable evil. Patiently advancing the instrument in this way, you see that now, at the depth of an inch and a quarter, the tip of the sound enters a normal urethral canal and then glides on without resistance into the bladder.

Ordinary surgical text-books scarcely refer to the possibility of this operation except when the occlusion is so thin as to be merely a septum across the passage. I was led to attempt it in your presence by another case brought to me a few weeks ago, which seemed almost precisely like this. The child was two days old. No meatus could be found. Moderate use of a probe made no headway. Discouraged in trying to reopen the natural route, I went behind the scrotum and cut down upon the urethra at the middle of the perineum, thus giving a temporary outlet to the urine. After a time, owing to the contraction of the wound in healing, the flow of urine was impeded and some force was required for its expulsion. One day, to the surprise of all parties, the urine burst suddenly forth by the natural route, where there had been merely an adhesion of the urethral walls, which yielded to the pressure of the fluid behind the obstruction. In all probability, had I been more persevering, I might have succeeded by the same operation which I have shown you to-day.

Excision of the Superior Maxilla.—Six months ago this patient had a small tumor on the gum at the seat of the second upper molar tooth. It was removed by a surgeon, but it has returned again. It is now nearly the size of a hen's egg, extending backwards to the last molar, and inwards to the middle of the hard palate. The growth is too soft to be an osteo-sarcoma. It is therefore either ordinary sarcoma, or a carcinoma. As the glands of the neck are not perceptibly affected, there is hope that it may be sarcoma. No microscopic examination has been made, owing to the haste of the patient. We will remove the growth.

First comes the extraction of the canine tooth in front of the tumor, to make room for dividing the jaw; next we divide the upper lip in the middle, carry the incision around the alæ of the nose, and thence straight upwards. The second incision passes from the angle of the mouth upwards and outwards, and then we dissect off the cheek from the tumor

and draw it backwards. The duct of Steno is entangled in the growth, and must be sacrificed. Professor Marshall, who is present with his dental engine, now divides the arch of the jaw, the nasal process, and the anterior root of the zygoma. With a thin chisel I divide the arch of the hard palate, and seizing the growth with lion-jaw forceps, readily bring it away. You see that it fills the antrum, without adhering to it except at its posterior and outer border. These places have therefore to be cleared out with the gouge-forceps and bone-scoop, and the cavity cauterized with crystalized chromic acid. Replacing the cheek by the aid of suitable sutures, we will return the patient to bed. The operation would have been more hopeful of permanent success had I seen the patient earlier.

Hair Mole of the Forehead.—This infant has an enormous hair mole extending from the transverse suture of the skull forwards and down over the whole right side of the forehead as far as to the upper border of the eyelid. The hair upon it is exceedingly thick, and darker than that on other parts of the scalp. However, the dark eyelashes show that, as the patient grows older, her hair will become black, and match that on the mole. The skin on the centre of the growth is nearly black with pigment, and thick and wrinkled.

The immense size of the mole renders it necessary to consider carefully the wisest way of dealing with it. No amount of electrolysis of hair bulbs will answer here. The following plan promises best: First I dissect the skin of the mole from the top of the eyelid and carefully take it away up to the place where the brow ought to be. We must now make an eyebrow, which I will do by cutting two arched incisions, leaving a strip of the mole between them to match the form and length of the brow on the opposite side. As we do not know exactly how the contraction of the wound in healing will affect the form and position of the new brow, I make it a little wider than is ultimately needed, so that at a future time I shall have room to trim it to an exact correspondence with its fellow. Now I will raise the skin above the arch, and dissect it off as high as is necessary to give her a forehead as high on this side as on the opposite part. I will not remove that part of the mole embraced in the limits of the hairy scalp because, as she grows older, it will match the rest of her hair in color, and by dressing it low on the forehead she will be able to cover nearly the whole cicatrix from view.

Having thus removed all that is necessary of the mole, I take from the outer side of the patient's thigh some thin shavings of skin and graft them upon the raw area, to assist the process of cicatrization, and improve the smoothness of the surface. In grafting for this purpose we shave the grafts very thin, but apply them in large pieces, from half an inch to an inch in length, which often adhere very perfectly. I have had them succeed an inch and a half in length. The result in this case will be to remove a hideous deformity, and to restore the patient to a reasonable degree of comeliness, and perhaps even to some measure of positive beauty.

ORIGINAL ARTICLES.

THE TREATMENT OF CICATRICES IN THE COLLUM UTERI AND IN THE ROOF OF THE VAGINA.[1]

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When, as long ago as 1862, and then more fully in 1874, Emmet indicated the operative treatment of rents in the cervix, which he considered as the sources of a whole series of gynecological maladies, these conditions had, up to this time, been very little observed. They had been recognized as the cause of a relatively infrequent eversion (E. Martin) or of an ectropium (Roser).

Emmet, on the other hand, regarded these rents as the sources of catarrhs of the cervix and of the *corpus uteri*. He emphasized the difficulty and even occasional impossibility of healing these catarrhs as long as the rent exists. He further pointed out that these scars are the source of long-continuing, ever-spreading irritation in the pelvis. Finally, he very particularly insisted that such rents hinder the proper development of the uterus, if it become pregnant, and that in consequence, in a great number of cases, abortion is occasioned by them, and that many women who habitually abort suffer from rents in the cervix. His proposition to heal these by operation, to perform trachelorraphy, excited very extraordinary notice at that time, since it occurred just when far more attention was being given to securing a widely-gaping aperture of the uterus, and the influence of the bilateral discussion was supreme.

Emmet's propositions made progress among the Americans very rapidly, considering all things; in Europe, however, it was quite the contrary, and this operation was received very doubtfully, especially in Germany, although at that time operative gynecology was in a state of active development. First there was opposed to the method of Emmet the general disinclination in Germany to favor operative interference with the *portio vaginalis*. Then the attempts which were made to perform trachelorraphy were not seldom followed by imperfect results; the old cicatricial formation soon showed itself again more or less, or, on the other hand, there was formed a stenosis, an evil which just at that time it seemed to be a duty to zealously overcome by discissions.

But even when, in Germany, the plastic operations on the *portio vaginalis* in great numbers were well received, and authors like Breisky, Spiegelberg, and Schröder, and among others the writer, busied themselves with this operation, the operation of Emmet remained a rarity. Although, perhaps not least by the recommendation of amputation of the *portio vaginalis* which I warmly advised in 1878, at the meeting of German Physicians and Naturalists in Cassel, as imperatively indicated for wider fields of usefulness, gynecology was led so far that excision and amputation of the lips of the *os uteri* were undertaken not solely on account of chronic metritis

[1] Read before the Boston Gynæcological Society by E. W. Cushing, M.D., for the author, on December 10, 1885.

and malignant degeneration, and in Germany this operation became very frequent; yet, notwithstanding all this, strangely enough Emmet's operation did not come into the class of the frequent gynecological procedures. This seems somewhat strange to American authors, especially if, after a prolonged sojourn in Germany, they observe our daily work; and this impression is fully expressed in the late work by Bigelow ("Berlin a Medical Centre").

The cause of this peculiar state of things, however, is not at all that we do not recognize the importance of the cicatrices, that we regard the removal of the latter as anything difficult, or that the permanent results of our operative interference on the cervix were unsatisfactory; but the question was first considered whether the cervical rents are really the essential cause of the troubles on which Emmet insisted. The answer to this question is that we see cervical rents causing no symptoms too often to permit us to reply affirmatively. There are either, (1) *Catarrhal complications, i.e., affections of the mucous membrane;* or (2) *Peculiar and rare cicatricial formations*, which give importance to the cervical rents, and in such cases these should be attacked.

There is not the least doubt that we frequently find *catarrhs as complications of cervical rents.* But in such cases the catarrh is not dependent on the rent as such. It has either originated as an independent disease simultaneously with the injury of the cervix, or it has occurred there later. Doubtless, then, the symptoms of catarrh are much more prominent. The development of the glands of the area affected, and the increase in volume connected therewith, cause a protrusion of the diseased mucous membrane; the torn *os uteri* gapes, the cervical mucous membrane protrudes swollen, and with its hypersecretion and its hæmorrhages shows the well known and very typical appearance. The glandular new formation which we must recognize as the anatomical foundation of the erosions, according to C. Ruge's very significant investigations, also keeps spreading on the surface of the rent of the cicatricial tissue here developed, as it may also cover the whole surface of the *portio vaginalis* (see plates LIX of E. Martin's Hand Atlas, edit. II of A. Martin). Undoubtedly these complications resist obstinately any therapeutic measures. This form of catarrh can only be healed by a careful treatment, so that such patients must frequently suffer very severely, and become chronic invalids.

Emmet prefers to cure this affection of the mucous membrane by patient local treatment, and then performing trachelorraphy. In Germany it is generally preferred, as it appears, to use a more energetic treatment of the affection of the mucous membrane, after some trial of what treatment with medicaments for a reasonable period can accomplish. In such a case, however, there is no object in making also a trachelorraphy as such. For it is better to combine the excision of the mucous membrane with that of the cervical cicatrices; amputate the vaginal portion. By this means, as a rule, a very well shaped new *portio* will be formed in place of the torn, everted, diseased one. The majority of cases of amputation, according to the method of Hegar or Schröder, or as I do it as a rule, according to a plan combining both of these (see A. Martin's Pathology, Treatment and Diseases of Women, 1885, p. 285), gives a stump where, after completion of involution, very frequently the previous operation can be as little discovered as the alterations which led to the operation.

But in the few cases which heal thus typically there is moreover a proper aperture of the orifice with the lips of the *os uteri*, and a covering of flat epithelium. I have repeatedly endeavored to combine the typical Emmet's operation with excision of the diseased mucous membrane, and Schröder has also attempted this. For my part, however, I have given up this method completely, and in these cases I practice simply the typical amputation.

The cicatricial formation of rents in the cervix goes on and terminates in very different ways. It may so heal, corresponding to the quick changes in the cervical tissues, that scarcely any hardness and scarcely any cicatricial tissue can be distinguished, either by palpation or by the microscope. In other cases the cicatricial ramifications extend far beyond the immediate vicinity of the rent. Thence arises a displacement by contraction of the cervix, and also of the the body of the uterus, which may disturb the physiological position and shape of these parts of the uterus in connection with respiration, and motion, and fulness of the adjacent organs, in connection with their changes during menstruation and pregnancy.

Severe consequences occur when the rent has extended into the *parametrium*, reaching the base of broad ligament and the roof of the vagina, and drawing them out of shape, and, in a unilateral affection, drawing the uterus as far as the wall of the pelvis, or in cases of bilateral cicatricial formation, fixes it in the middle of the floor of the pelvis. Such fixation shows its presence at every jar of the body, at every change of position of the uterus. On this account severe distress is occasioned in almost all stages of the development of the malady, frequently defying treatment by medicaments. Operative interference is called for in these cases, and with such indications we practice it with the best results.

Cicatricial formation limited to the cervix is commonly treated by us by the typical trachelorraphy of Emmet. The results of this operation correspond to the good success which Emmet himself reports from it. When the mucous membrane is healthy a good scar is formed, which in case of subsequent pregnancy neither shows itself as a hinderance to the development of the body of the uterus or cervix, nor during delivery is found to be a weak spot, easily torn in the external os.

In cases of extension of the cicatrices in the roof of the vagina I am accustomed to use a somewhat different procedure. I first separate the cicatricial tissue of the roof of the vagina and of the floor of the pelvis from the cervix uteri, and excise the former completely from its environment. Then, if the cervical mucous membrane be healthy, I refresh the scar in the cervix, and here also I remove thoroughly all cicatricial tissue. Then the sutures are put in in such a way that the wound, which was first round or

even gaping parallel to the median line of the floor of the pelvis, is united to form a scar running transversely through the roof of the vagina. This scar running transversely through the roof of the vagina terminates in the end of the cervical rent; the latter is closed either according to Emmet's plan, or, if there be at the same time disease of the mucous membrane, an amputation of the lips, excision of the erosions, and curetting of the mucous membrane of the uterine body is performed. The dissection of the cicatrix from the cervix is made with a pointed two-edged knife, and seems easy to perform when the parts are put properly on the stretch with the patient on her back and the vagina held well open by a Simon's speculum and Hegar's holders (see A. Martin's "Diseases of Women," p. 24, fig. 15). The wound gapes, often large arteries spurt (branches of the uterine artery), and require quick action in controlling the hæmorrhage; or on the other hand temporary ligation at the sides. The womb falls away from the wound by its own weight towards the median line in cases in which it has been distorted towards the side.

After sewing up the wound a normal configuration of the roof of the vagina is generally attained. Convalescence in the cases observed by me was attended by no difficulties. The final result, however, was surprising in the completeness of the removal of the severe symptoms which had accompanied these cicatricial contractions. One of my former assistants, Dr. Czempin, has undertaken the presentation of the detailed histories of the cases observed by me, so that I can refer to this work, which will soon appear, concerning the various particulars of the cases.

Berlin, October 8, 1885.

COCAINE AND OTHER ANODYNES IN OTOLOGY.[1]

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Before considering the newest and greatest remedy for annihilating pain, it will be both interesting and profitable to take a brief survey of the past history of anodyne aural therapeutics. We sometimes look with pity on the semi-intelligent, yet unavailing efforts of dumb animals to relieve themselves of great burdens or pains. Similar sentiments are awakened by the scene which presents itself to our view as we look back into the darkness of the night of time, when the birth of the infant, Medicine, was attended only by the nurse of ignorance and the midwife of superstition. In the presence of the great evil, pain, which all feared and none could conquer, the sufferer's friends looked on, helpless to relieve, or adding to the unfortunate's horror by crude, disgusting and aggravating remedies. One can hardly believe the stories told of ancient practices until he reflects upon the superstitions of our own time. Even now I know of a man who drives a thriving business by administering lobelia to every deluded mortal who applies to him for relief, and when the victim vomits, the mountebank exultingly points to the parts of liver which the patient is told he has ejected.

In view of our own observations of human weakness and credulity, we should be prepared to look with consideration upon many of the worse than useless practices of the ancients. To begin with Hippocrates: a deceptive treatment has been imputed to him which he probably never practised. He is cited as having recommended that "If any person have a pain in his ear, the physician should roll a bit of wool about his finger, and then pour some warm oil into the ear, and then, taking the wool in the hollow of his hand, he should hold it before the ear, in order to make the patient believe it has come out of it. In order to make the deception complete, the wool should be at once thrown into the fire." The procedure is not consistent with what we know of Hippocrates, and moreover was not necessary, for he himself recommended the instillation of warm water into the ear for the relief of pain, and this treatment was sufficiently effective to preclude the necessity of practicing such a deception. His warm water treatment is one commonly resorted to at this day, and has been advocated by numerous prominent authorities in medicine from his time to the present. Apollonius recommended burned opium and castoreum. Archigenes practiced venesection and warm baths to the ear. Galen recommended warm wolf's milk or pepper mixed with old oil for earache from cold; but for inflammatory earache he used fat of geese and hens, and for severe pain, a mixture of opium, musk and white of egg, also castoreum, or a solution of opium in thickly cooked juice of fruit. He took the precaution to use these remedies warm. Cælius Aurelianus employed leeches, cups, poultices and mustard plasters. Marcellus's refined taste was pleased with nothing short of frog's fat; and, to cap the climax of æsthetic culture, Serapion spurns the aid of a being so primitive in the scale of creation as the frog, and soars to the loftiest pinnacle of perfection in the world's evolution, declaring that the fat of woman, and that fat only, cures earache. His rule insists that the milk must be that of a woman who is nursing a female infant, if the patient be a boy.

So familiar is the subject that but brief mention need be made of modern anodyne treatment as applied to the ear. The popular domestic remedies are sweet oil, molasses, laudanum, roasted onion, glycerine and haarlem oil. The exceptions to be taken to these are that the oils are likely to become rancid and irritating, and the glycerine and haarlem oil are too stimulating. Moreover, the effects of most of these remedies are practically those of a poultice, namely: warmth and moisture, and are generally to be deprecated. Leeches afford more relief than any other topical treatment heretofore used by the profession. Morphia sulphate in the form of Magendie's solution sometimes relieves. I have been in the habit of prescribing it in 10-drop doses, warmed and instilled into the ear. I have found it more effectual when combined with atropia, of the strength of 4 grains of the atropia to the ounce of Magendie's solution. The warm breath, not blown, but breathed

[1] Read before the Chicago Society of Ophthalmology and Otology, February 9, 1886.

gently into the ear, with the open mouth close to the auricle; warm water and warm vapor, especially from chloroform, are sometimes very grateful; but chloroform should never be poured into the ear. Warm tobacco smoke passed through a pledget of cotton placed lightly in the external meatus has proved very mitigating. In many cases of acute otitis media which have come under my treatment before the discovery of cocaine, I have not been able to give patients such complete relief from pain as to secure sleep at night without exhibiting sedatives internally, such as chloral, bromide of sodium or potassium, and morphine.

Cocaine is the last and best in the list, but the experience of those observers whose writings upon cocaine I have read, differs in so far from mine as that they seem to exclude the skin from its field of utility, whereas I have often applied it to cutaneous surfaces with the happiest results. To be more explicit: I have repeatedly employed it in aural diseases in which an acute inflammation was limited to the middle ear, when inspection disclosed the drum head in its integrity, the external meatus not being involved, and the tympanic pain was intense. When I began using cocaine in these cases I employed a four per cent. solution of the hydrochlorate. I brought no other pain alleviator to my aid, but relied entirely on the new drug for relief. My practice has been to warm half a dozen drops of the solution and instil into the ear, with the patient's head inclined to the opposite shoulder. He is requested to maintain this position for five minutes, and before the expiration of that time the pain is invariably assuaged. Usually not more than one or two minutes elapse before I inquire if the pain has ceased, and rarely has it happened that an affirmative answer was not returned before the expiration of two minutes. If it be asked how it happens that pain produced by pressure on the nerves in the middle ear is relieved by a local anæsthetic in the external ear, with a layer of skin and connective tissue interposed between the medicine and the diseased membrane, I reply that it is the result of endosmosis.

In acute otitis media the tympanic cavity contains mucus, if not muco-pus, by the time a patient seeks the aid of a physician. Thus we have given a membrane intervening between fluids of differing densities, and a form of molecular attraction allied to that of adhesion, with the result of a rapid flow of the thinner fluid through the interposed membrana tympani, to become equably diffused in the thicker fluid contents of the middle ear. This passage of the cocaine solution through the drum head is certainly a rapid one, for there is no room for doubt that it reaches the paining nerves in less than two minutes after impinging upon the membrane. This rapidity of action does not appear so wonderful to one who makes a practice of applying the remedy to mucous surfaces, for almost immediately upon its touching the nasal or faucial mucous membrane the benumbing effect is realized. The result for which I was least prepared was that patients usually reported that there was no return of the pain. I was led by my experience with cocaine in hay fever and coryza to expect a recurrence of the symptoms at the expiration of an hour and a half or two hours.

If I may be allowed to digress for a moment I will mention several facts of interest, though somewhat irrelevant. By treating a carious tooth with cocaine I have dissipated a reflex earache, while curing the toothache. I have operated on squint eyes under cocaine anæsthesia without producing any pain. However, it is not a suitable substitute for atropia to relieve pain, for its continuous application to the cornea seems to produce opacities. It dilates the pupil when used locally, whereas in toxic doses internally it is said to produce contraction. On account of its primary inhibitory action on blood-vessels, little hæmorrhage occurs during an operation under its effects, but its secondary dilative action permits as free bleeding afterwards as though the remedy had not been employed. I have prescribed a two per cent. cocaine ointment in severe cases of thrush with the result of procuring sleep.

There is still another particular in which my experience appears to have been unique. When I have found it necessary to apply a counter-irritant over the mastoid process and below the auricle, I have painted the parts with the essential oil of mustard, and allowed it to remain until the stage of vesication approached and the patient complained bitterly of pain. Then the cocaine solution was painted thoroughly over the reddened surface, and in a few minutes the burning pain ceased. Hence the question arises: why may we not be able to control the pain of burned surfaces in the same way, and to relieve the burning sensation of erysipelatous inflammation, the itching and burning of eczema and kindred affections? I have frequently employed this remedy in painful inflammations of the middle ear when perforations of the membrana tympani have existed, but I cannot say that the results were more signal than in those cases in which perforation had not occurred. I recall a case in which I made a crucial test of the efficacy of this new anæsthetic. It has been my practice, after removing polypi, to cauterize the sites of attachments with mono-chloracetic acid, to preclude a reproduction of those growths. I have had under treatment a case of chronic suppurative inflammation of both middle ears, of thirty years' duration. In either ear was a large fibrous polypus; in one it was so large as to extend beyond the opening of the external meatus. The patient could hear nothing with the worse ear, and very imperfectly with the other, even when aided by a capacious ear trumpet. I removed one polypus and cauterized its base, having ready a four per cent. solution of cocaine in a medicine dropper. When the pain from the acid reached its height the cocaine was dropped upon the burning tissue, and in a moment the pain-distorted countenance was transformed into a happy expression of gratitude. When I operated on the other ear I took the precaution of applying the cocaine thoroughly before resorting to the cautery. The patient experienced no pain, and was loth to believe that the same treatment had been given.

It will be readily understood, after reflection upon the mode of entrance of cocaine in solution through

the drum head into the middle ear, why the solution and not an ointment should be employed; but the ointment of the same strength is better adapted to the treatment of furuncles, for it will remain longer in contact with the parts. A powder which I employ in treating the respiratory passages may be used to cover furuncles, or to insufflate the middle ear when a perforation of the drum head is present. The powder consists of six (6) parts of cocaine hydrochlorate and ninety-four (94) parts of sugar of milk. This makes an impalpable powder which will readily pass with a column of air impelled through a perforation in the drum head. The instrument which I devised for insufflating cavities with powder is especially useful in this instance. It consists of a stout bottle three inches high and two inches in diameter, with a soft rubber stopper. There are two perforations extending vertically through the stopper, through which pass two vulcanite tubes. The latter pass downward through the stopper, but do not extend below its under surface. Above the stopper the tubes are bent in a curve so that their extremities point at right angles to their vertical portions. To one of these extremities is attached a rubber tube and bulb. The bulb contains a valve of soft rubber at either end, to prevent a regurgitation of the column of air sent into the bottle of powder, and a consequent dusting of the operator's clothing. By varying the force with which the bulb is compressed, one may project a small or large quantity of the powder into the ear at pleasure.

There are other important effects of cocaine on mucous surfaces than that already mentioned. After it has been in contact with mucous membrane about ten minutes, the mucous tissue presents a pale and contracted appearance, even if it were previously red, swelled and painful, as it is in thrush, coryza and hay fever. This, together with the anæsthetic effect, may be taken advantage of in catheterism of patients in whom the inferior meatus is constricted, and lined with a hypersensitive membrane. In those cases the powder is more conveniently applied than the solution, and the six per cent. powder is susceptible of more general application than any other. In mild cases of pain and hyperæsthesia I have found the two per cent. preparation quite satisfactory.

Although the primary effect of cocaine on mucous tissue is to cause paleness and shrinking of the membrane, there is a secondary effect which I have observed repeatedly, but which I have never seen mentioned by any other writer. If the parts have been thoroughly anæsthetized, and especially if they have been kept in that condition for a number of hours by renewed applications of the remedy, there follows a considerable swelling of the membrane, which persists with more or less constancy for a day or two after the applications have been discontinued, and the subsequent hyperæsthesia may be found to be augmented.

However, it must be conceded that cocaine has demonstrated itself to be the most important local anæsthetic that medical science has yet discovered. But a few months old, in a therapeutic sense, its brilliancy of achievement has flashed like a meteor over the whole medical world. So deep an impression has it made on suffering humanity that it has rapidly passed beyond the conservative control of professional men. The laity grasps at anything that promises to be a boon—a panacea for all aches and pains. An indiscriminate use results—an actual abuse of a remedy as potent for evil as it is powerful for good. Already the cocaine habit has supplanted the morphine, alcohol or chloral habit. A step in the right direction has been taken by the profession of New York, by the preparation of a bill for the Legislature, to place cocaine on the list of poisons to be sold only on physicians' prescriptions.

Cocaine poisoning has repeatedly occurred, and in the midst of our own ranks, impaired health and temporary insanity are attributed to the excessive use of this drug. So, while lauding its merits, let us manifest a just appreciation of its dangers, and erect lighthouses of caution with the victims who have fallen prey to its direful power. But the history of medicine is like the history of men. The greater the man, the grosser the abuse. The better the drug, the worse is its misuse. A note of timely warning should be sounded, and the duty of the conscientious physician done, for although one cannot be the keeper of his patients' wills, he should be a guardian of their health and morals.

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THE FLAP EXTRACTION OF SENILE CATARACT.

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Of all the methods of dealing with senile cataract that have at various times been detailed and advocated by different authors, the upper flap with an iridectomy has been attended with more uniform and favorable results than any other. The flap extraction was first practiced without the removal of a segment of the iris. The results thus obtained were superior to those by any of the other methods that had been previously practiced. Statistics show that about ten per cent. of the cases thus treated were lost. Mooren, of Düsseldorf, in 1862 proposed the following method: He first did a very free iridectomy, removing a large segment of the iris. He then allowed the eye fully to recover, waiting perhaps three or six months as the case might require, when he made the ordinary flap upwards and extracted the lens. This method has to-day many advocates, and its advocacy is founded upon sound principles. Small insults can be tolerated better than great ones. It divides the operation into two equal parts, and likewise divides the danger to the organ. The flap extraction is not, however, without its dangers.

There may be diffused or defined suppuration of the cornea, or iritis, and in extreme cases of danger there may be not only iritis and suppuration of the cornea in conjunction, but every structure of the organ may be seized with an active form of inflammation which, with the unfavorable surroundings, would terminate in suppuration and its entire destruction. Iridectomy is powerless to protect against the calam-

ity of diffused suppuration of the cornea, while it might exercise a good influence in the event of a threatened defined inflammation. It does, however, give a high degree of immunity from iritis. In every flap extraction accompanied with an iridectomy at the same time, iritis is one of the chief dangers to be anticipated. It is no exaggeration to say that nine-tenths of the failures that occur in flap extraction when the iridectomy is done at the same time, have their origin in iritis.

When the iris is wounded and left without its natural lens support it is very much more susceptible to acute inflammatory action. Hence, when the iridectomy is done as a preliminary step the iris is left with its natural lens support and is placed under the most favorable circumstances for recovery, and thus the danger from iritis is almost if not quite removed when the subsequent flap is made for the removal of the lens. If the final operation be dextrously done the iris is but little disturbed. The upward flap with the iridectomy, of course, in the same direction, is preferable to the downward direction for two reasons: 1. The upper lid furnishes an excellent support to the flap and holds the corneal edges in close coaptation, a circumstance both essential and desirable for a rapid union of the parts. 2. The artificial pupil is covered by the upper lid, which not only obscures the deformity but prevents that disagreeable dazzling, an unavoidable concomitant when the pupil is made in any other direction. This method, however, of treating senile cataract has been objected to by many on the ground that the patient is subjected to the anxiety of two separate and distinct operations. This objection is, I think, in a very great measure overcome since the introduction of the use of cocaine as an anæsthetic in ophthalmic surgery.

When this agent is properly employed both the operations are rendered almost or quite painless. By way of illustration I had occasion to do an iridectomy a short time since, and after completing the operation the patient in a very complacent manner asked me if I would soon be ready to begin. When the first operation has thus been demonstrated to the patient to be painless while consciousness is undisturbed, the subsequent one is in a very great degree robbed of its anxiety. But it has been urged by some as a serious objection against the use of cocaine in the cataract operation that it diminishes the tension of the globe, thereby increasing the difficulty of the operation. This is another hair-splitting objection. Can any one tell why it should lessen the *tension* any more than atropine? Is it a fact that it does? It is a well recognized practice and I think a very good one, to drop into the eye a solution of atropine of sufficient strength to procure as wide a dilatation of the pupil as possible before operating. I have used both hundreds of times and have never been able to discover that the one diminished the tension any more than the other. Admitting for the sake of argument that cocaine is the more relaxing of the two, I think that the slight inconvenience to the operator is compensated in a twofold ratio: 1. It renders the operation almost or quite bloodless, and thus prevents that occasional and disagreeable occurrence, a chamber partially or perhaps wholly filled with blood from a bleeding iris. 2. The diminished tension lessens the chances of rupturing the posterior capsule, which might allow the vitreous to come forwards into the chambers, a circumstance highly to be deprecated.

The method of making the flap has been regulated by laws which give the greatest possible space for the exit of the lense with the least possible division of the structures involved. In entering the anterior chamber the point of the knife is directed towards the centre of the globe. As soon as the point has fairly entered the chamber the handle of the knife is carried backwards until the blade is parallel with the plane of the iris. In this position the point is shoved along till it passes the centre of the pupil. The handle of the knife is now depressed till the point reaches a position directly opposite the place of entrance, where it is made to transfix the cornea. The blade is still parallel to the plane of the iris, with its cutting edge directed upwards. Thus the blade, being parallel with the plane of the iris and the edge directed upwards with a gentle sawing motion, is made to divide the cornea till its extreme upper segment is reached. The edge is then turned upwards sufficiently to bring the plane of the knife perpendicular with the axis of the globe. In this direction divide the corneal substance till the conjunctiva is reached. From this point carry the edge between the conjunctiva and the sclerotic a half a line in distance, and then cut through the conjunctiva. This makes a little conjunctival flap which can be easily adjusted after the removal of the lens. The great vitality and vascularity of the conjunctiva render its union so rapid that a good support is made to its corneal edges.

A word in reference to lacerating the lens capsule may at this place be apropos. Instead of using the ordinary pricker or cystitome for incising the capsule of the lens I have, with very satisfactory success in a large number of cases, adopted a very different method. I employ the point of a Gräfe cataract knife to split the upper segment of the capsule large enough to permit the exit of the lens. By this method the lens substance is shelled out of the capsule and the cortical substance is left behind where it is out of harm's way. At least that part of it is left which would otherwise float about in the chamber and come in contact with the iris and perhaps ciliary bodies, and thus act like a foreign substance and be a dangerous source of irritation. When it is left incarcerated in the capsule it is equally as readily absorbed, since the aqueous has free access to it.

The location of the flap has been much discussed at one time and another. Some advocate its location entirely in the sclerotic, others in the sclero-corneal junction, while there are many who think it should be made wholly in the cornea. The reason assigned for making it entirely in the sclerotic is that this tissue heals more readily than the cornea. Experience has, however, proven this to be a fallacy. Admitting, for the sake of argument, that there is a slight difference in favor of the sclerotic, it

would be unquestionably more than overbalanced by going as near the ciliary region as is necessary to make the flap wholly in this tissue. This is the dangerous region of the eye, and the wider one steers of it in any operation the less is the result jeopardized. The sclero-corneal flap is, in a diminished degree, however, open to the same objections. The reason, therefore, for making it wholly in the cornea is twofold: 1. It is farther removed from the ciliary region, and 2. The experience of such men as the late Mr. Critchett, of London, confirms the assertion that this tissue unites more readily than the sclerotic.

There are some objective symptoms that are valuable in giving a prognosis as to the result to be obtained by the flap extraction. The first of these is the condition of the pupil: whether it be active or sluggish, whether it respond promptly to the influence of light and shade, and atropine. The latter condition is the more favorable one, from the fact that the stiff, thick, sluggish iris is predisposed to iritis. The muscle is partially deprived of its animal matter, its fibres are infiltrated with disorganized material which deprives it of its normal elasticity and power to resist inflammatory action. Its vitality is lowered, and consequently its power to resist mechanical injury diminished. Therefore an active pupil can in truth be said to be a favorable prognostic symptom. Again, the flap operation should not be attempted when there is the slightest evidence of conjunctivitis. Cure this first. Neither the patient nor the physician can afford to disregard this one, little, important point. The drainage apparatus of the eye should also be carefully inspected.

When the extraction of the lens is completed, a collapse of the capsule is another favorable indication. The reason for this is twofold. 1. It is an evidence that the posterior capsule is intact, or at least that the vitreous has not been disturbed; and 2. That the cornea is in a healthy condition, as evidenced by its pliability. These are some of the considerations that should govern one in giving an opinion as to the probable results of a flap extraction.

Again, an extraction should not be done when there is any prevailing epidemic, such as cholera or any of the exanthemata. The depressing influences of these upon the mind of the patient disarms, as it were, the physical forces, and thus, in the unguarded moments of nature, golden opportunities are thrown away and forever lost. It is so unlike many other operations, since the slightest error may turn the tide of success and leave the patient in total darkness.

The general condition of the patient's health should also receive the most careful attention. In short, the more carefully every detail, be it ever so small, is considered, the greater will be the chances of success. As the whole is composed of parts, so little ills combine to establish a morbid condition which may defeat the desired result. The experience of the past few years has also wrought some very valuable changes in the after-treatment of flap extraction. When the edges of the flap are brought into close contact with each other and all coagula carefully removed, the present practice is to close the eye, cover it with a circular piece of soft linen, and then fill up the orbital cavity with little pieces of carbolized cotton, equally distributed. Before applying the bandage, place a few pieces of the cotton around the orbit in such a manner as to prevent too much pressure directly upon the eyeball. I prefer a flannel roller, which should be passed around the head three or four times in such a manner as to cover the eye and give an equal support to the entire surface of the globe.

The other eye should be covered as well, in order to insure perfect rest to its fellow. The bandage and cotton should be changed every twenty-four hours. If all goes well, this is the only dressing that will be required. The old practice of applying cold water dressing has been entirely discarded. It washes away the corneal cementum and embarrasses the reparative process. There are numerous emergencies that may arise, but to detail them here, with the various methods of treatment, would extend far beyond the limits assigned to this paper. Before dismissing the subject, however, permit me to ask of my readers for any innovations on the established order of things contained herein, a resistance that loves to be reasonable rather than energetic.

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SOME PECULIAR CASES OF EPIDEMIC FEVER OCCURRING IN TOULON, ILLINOIS.[1]

BY W. T. HALL, M.D.,
OF TOULON, ILLINOIS.

The purpose of this paper is to give a history of a peculiar epidemic which recently occurred in Toulon, Stark Co., Illinois. This history may, however, be prefaced by saying that Toulon is well watered, very few of the wells being influenced by surface water, and no cases of the epidemic occurred in the part of the town where the wells are so influenced. The natural drainage is far superior to that of most towns, and the sewerage has been carefully, scientifically and methodically cared for.

Having lived in the town for forty years, having known all the epidemics of the town, and having only known of one family before in which typhoid fever originated and went through the whole family, I was at a loss to account for this abrupt appearance, and persistent protraction. The number of cases thus far have been twenty-six, the ages ranging from 11 to 67 years. These have all been typical, well-marked cases, though many others in the different families in which the disease has appeared have had some of the premonitory symptoms, but no further development.

Nineteen of these cases came under my care, and in speaking of this epidemic I will only describe those under my own personal observation. The first patient was taken sick July 27, 1885, and they have continued to make their appearance up to the present writing (November 9). The premonitory symptoms for the first ten days are those of typhoid fever, with the exception of more lassitude and more catarrhal trouble. On the eleventh day in thirteen of these cases, and in the remainder on the twelfth day, de-

[1] Read before the Military Tract Medical Society, on November 10, 1885

veloped the trouble which was to be predominant through the course of illness. Four cases were pronounced typhoid with well developed catarrhal fever as a complication. The only symptom lacking in these cases was the typhoid eruption, and that was lacking in all the cases. One of the peculiarities of this epidemic has been that no two cases in the same family have been exactly alike. For instance, I have treated three cases in two families. In the one, the typhoid element was predominant, in the second the malarial, and in the third the catarrhal. The ringing in the ears was present in all, was the first symptom complained of and lasted through the whole course, increasing in severity, so that by the seventh day it became so pronounced that it was almost impossible to make the patients understand anything said to them. The tongue in two cases was red and glossy; in three brown; in the remainder white and flabby. In fourteen tremulous, and in seven pointed.

The stomach was exceeeingly irritable in sixteen of the cases, this commencing on the fifth or sixth day, and lasting from twenty to twenty-five days. The ejected matter was bilious all through the course. The liver was engorged, and tender over the right lobe, in every case forming one of the first complaints, and lasting to its termination. Hæmorrhage of the bowels occurred in four cases very severely; in one case mild. It occurred in two cases on the fourteenth day, in one on the twelfth, and in one on the twenty-ninth. In all of these cases the red tongue and tenderness in the iliac region were absent.

The hæmorrhage lasted in one case four days, in one six, in one three, and in one one day. The last passage in all the cases resembled beef's liver, both in color and consistency, more than anything to which I can compare it; there were no clots, but a congealed mass. There was hæmaturia in three cases, coming on from the eleventh to the thirteenth day, but it never occurred in a patient who had hæmorrhage from the bowels.

The parotid gland was enlarged in six cases on both sides, in five on one side. The enlargement commenced on the fifteenth day in all the cases save one, and in that on the eighteenth day. Abscess formed in but one case, and I opened that on the fiftieth day, no pus being present until that time.

There were convulsions in three cases; in two on the fourteenth and one on the seventeenth day. In two I attributed them to reflex action from the bladder, which I shall describe farther on, and in one to hereditary tendency to chorea. In the two of reflex action recovery took place; in the choreic, death was the result. One had two convulsions, one five, and the fatal case nine.

There was delirium in four cases, it being the delirium of typhus rather than of typhoid fever. The remainder would answer the questions coherently, yet upon recovery, the twenty-five or thirty days' period of illness was a perfect blank. There was no muttering, no wandering except in the four cases mentioned, and they were of that wild uncontrollable type, with the ringing metallic voice found in the delirium of typhus fever.

The temperature was an even one, with nothing of the zigzag found in typhoid fever. In seventeen cases it ranged from 100° to 100.5° F., in one 104°, and in one 105°. So the antipyretic treatment with quinia was indicated in only two cases. The temperature in the seventeen cases did not vary half a degree at any time for twenty-five days.

Syncope occurred in three cases; in one on the seventeenth, one on the fourteenth, and one on the twenty-second day, in one of the cases lasting fourteen hours.

Epistaxis took place in all the cases from the second to the third day. In the most of them it was mild and subsided after two or three days. In two it was severe and came on every few hours for twenty-three days.

The catarrhal complications were not only present in all the cases, but caused by far the most pain, and were the hardest to control. Some of the cases would be upon the bed-pan six hours out of the twenty-four, and one of them told me who had had three children that she suffered more each time in passing water than she had done in labor.

The urine was scanty, highly colored, and very offensive; frequently not over a teaspoonful after an hour or two of hard straining. It was in the two cases of convulsions I have referred to as being caused by reflex action, as both cases went into convulsions while passing water.

Diarrhœa was present in all the cases except one; and that was the one that had the hæmorrhage from the bowels only one day. The discharges were bilious, and the most offensive I ever experienced.

All the patients had a peculiar smell, unlike any odor with which I am acquainted, but just as pronounced as is that of measles and small-pox. In fact, by the second day, I could tell by the smell those coming down with this trouble. The night sweats were severe in only two cases, but occurred in eleven. I omitted to state that the catarrhal affection extended along the whole track of the nose, the Eustachian tubes, and the ear. The fatal case died on the seventeenth day. The eighteen cases that recovered were bedfast from twenty-three to sixty days.

These, I believe, are all the points of interest, save a few words as to the treatment. The first patients presenting themselves with a brown dirty tongue, and many of the symptoms of a bilious attack, I gave them calomel and jalap in powder, 10 grains each, followed in six hours by a Seidlitz powder. But I soon found that I had cases that were going to be protracted, and that I had to guard well my patients' strength, and that persuasion rather than coercion should be followed. I found that 2 grains of calomel, with 3 grains of bicarbonate of soda every second night, was preferable, with 5 grain doses of bismuth through the day. I gave quinine in from 5 to 10-grain doses every two hours through the whole course of the disease, except in the two cases in which I wanted the antipyretic effect; in those I gave to one 25 and the other 40 grains, in the evening, for four days, at which time the temperature came down to 101.5° F. and remained so until recovery. Instead of aural symptoms from the large doses of quinine,

the hearing became better, convincing me that a malarial poison was at the bottom of all these peculiar phenomena, else there would not be such a tolerance for the drug. Turpentine, so useful when the tongue is red and glossy, was not admissible at all, as the only cases to which I gave it had strangury in from six to nine hours after administering it. It would produce that trouble even in 5-drop doses. I found that balsam of copaiba and cubebs in capsules gave the only relief for the bladder trouble. I gave them in capsules, as the stomach would reject them in liquid form.

I gave ergotine for the hæmorrhage from the bowels, Dover's powder and camphor for the delirium, atropia for the sweating, bromide of potassium and bromide of ammonium for the convulsions, 10-grain doses of the potash, and 5 of the ammonium, every half-hour until the convulsive movements ceased. For the syncope I gave the carbonate of ammonia and tincture of digitalis. These drugs, of course, were given as indicated, while the quinia was never omitted until convalescence was fully established, and was then given for a week or more at lengthened intervals.

COCAINE IN HAY FEVER.

BY E. FLETCHER INGALS, M.D.,

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In the issue of THE JOURNAL for February 6 appeared the report of a lecture on the above topic by Dr. S. S. Bishop, in which cocaine is highly recommended for the relief of hay fever. The writer also mentions the fact that the drug sometimes causes unpleasant effects and that it cannot be considered curative.

In addition to what he has said of it I wish to call attention to an effect which I have frequently observed, viz.: Continued use of the drug renders it necessary for the patient to take more and more of it for relief, and finally the constant stimulation of the sympathetic nerves in the nasal tract causes paresis, with resulting swelling of the turbinated bodies, which may at length permanently obstruct the naris. Dr. Bishop states that no cure for the affection has been heretofore discovered, but in this I am confident he has made a mistake. The surgical treatment which he says is "too recent to have afforded permanent results" is as certainly entitled to the distinction of being a curative procedure as quinine is entitled to that of being curative for intermittent fever. It has now been in use for four years, and the cases thoroughly treated by it at first are still free from the disease. I have treated many patients in this way, and every one of them in whom the treatment was complete escaped the attack last summer. The writer suggests that the treatment may cause spasmodic asthma. In this I fully agree with him, as anything which causes closure of the naris may cause asthma, but it is the exception with patients treated by this method, just as it is the exception for people to have asthma in whom the nares are occluded from other causes.

It is true, also, that in his own case two applications of the galvano-cautery were followed by asthma, and that they did not cure the hay fever. Two applications of the cautery never could cure the hay fever, for when the nasal mucous membrane is sensitive enough to cause the disease there is as much of it involved as can be safely cauterized in fifteen or twenty sittings.

We must remember that in both nasal cavities there is an area of mucous membrane of not less than sixteen square inches, and sometimes half of this is involved; at the same time not more than one-fourth or at most one-half a square inch of surface should be cauterized at any sitting, and the last amount will be well borne only in exceptional cases.

In conclusion I wish to reiterate my belief in the value of cocaine for the relief of hay fever, in which disease I think I was first to use it; but I wish also to direct attention to the ill effects which may follow its protracted use, in order that physicians may caution their patients against using more than is absolutely necessary.

I wish, also, to assure the profession that they have in the surgical treatment a cure for the disease which may be relied on in at least nine cases out of ten.

64 State St., Chicago, Feb. 9, 1886.

MEDICAL PROGRESS.

DIGESTION: ITS PHYSIOLOGY AND PATHOLOGY.—PROFESSOR EWALD AND DR. J. BOAS publish (*Virchow's Archiv*, Bd. ci, Heft 2) the results of a number of valuable experiments they have made on inmates of the Woman's Infirmary in reference to the physiology and pathology of the digestive act. One of the inmates was especially suited for this purpose. She was a young woman with a peculiar neurosis of the stomach, of an hysterical nature, in whom for the past six years vomiting had occurred spontaneously almost immediately on the ingestion of fluids, and from two to three hours after partaking of a solid meal. Her appetite was normal and her general health good, and she increased in weight while in the hospital. Repeated examinations showed the process of digestion to be normal. Inspection of the contents of the stomach when she was fasting showed (1) that they were constantly free from aliment; (2) that as a rule the reaction was neutral, in a few cases slightly acid; (3) that neither free hydrochloric acid nor lactic acid was present; (4) that peptone was constantly absent. This is in direct contradiction to what Schultz has recently stated—that the stomach, fasting, has its contents strongly acid. To meet the objection that the act of vomiting might influence the chemical changes, experiments with the siphon stomach-tube were made on other inmates of the hospital in whom there were no disturbances of digestion. These gave results identical with those in the case of Seeger—the patient subject to vomiting. By employing certain reagents, the observers were enabled to separate lactic acid from hydrochloric acid, and de-

tect their presence respectively in the contents of the stomach. On giving Seeger 60 grains of white bread, it was found that in ten minutes afterward the contents of the stomach gave a slight lactic-acid reaction. The reaction increased in intensity for thirty or forty minutes, after which the lactic acid began to disappear and free hydrochloric acid took its place. As the latter increased, the lactic acid diminished, until a a stage was reached when it completely vanished. They would therefore divide the process of digestion into three stages—the first, in which lactic acid is present but no hydrochloric acid; the second, or intermediate, in which the lactic acid reaches its acme and hydrochloric acid first appears; the third, in which the lactic acid rapidly disappears while the hydrochloric acid increases in quantity. On giving the patient pieces of thin sliced meat, the same three stages were observed, but the duration of each was longer than when white bread was given. The first occupied fifty minutes; digestion as yet had made but little progress, the meat fragments were still of a fleshy red color, and the transverse straiæ were quite distinct. The intermediate stage extended to ninety minutes after the meat had been eaten. Even yet the digestion had not made much progress, the reagents showing the presence of sarco-lactic acid and a slight amount of hydrochloric acid. In the third stage (ninety to a hundred and twenty minutes) no sarco-lactic or lactic acid could be detected, while free hydrochloric acid existed in abundance. With a fish diet exactly similar results were obtained. Very convincing evidence that the lactic acid is a product of fermentation of the food taken, and not a secretion from the stomach, was afforded by the experiments of giving the patient egg albumen alone. The examination of the stomach contents did not show the presence of lactic acid in any of the stages. Quite different were the results when potatoes, which are a great producer of this acid, were given. Lactic acid was detected as early as ten minutes after eating, and persisted for a long time. To fully comprehend the strength of the position they take in reference to the rôle played by lactic acid in digestion, another of their experiments must be related. They allowed the patient to masticate 30 grammes of thin sliced meat and 20 grammes of white bread. These were divided into five equal portions; one portion of each was treated with a 0·3 per cent. solution of hydrochloric acid. They were all put into the incubation oven for three hours at a temperature of 40° C., then left for seventeen hours at the temperature of the room. There were thus four portions: 1, 15 grammes of thin sliced meat; 2, 15 grammes of thin sliced meat plus 10 c. cm. of a 0·3 per cent. solution of hydrochloric acid; 3, 10 grammes of white bread; 4, 10 grammes of white bread plus 10 c. cm. of the 0·3 per cent. solution of hydrochloric acid. These, on being tested, gave the following results: 1, strong lactic acid reaction, no peptones, no sugar; 2, also strong lactic acid reaction and slight peptone reaction; 3, strong lactic acid reaction; 4, no lactic acid reaction. A strong antagonism, they say, exists between the two acids. If the digestive act is interfered with in any way, the lactic acid stage is lengthened in duration. An interesting fact in connection with this was noticed in the patient Seeger. During menstruation the period of digestion was prolonged, and so was that of the lactic acid. Delayed digestion would, therefore, go hand in hand with the persistence of that acid in the stomach. Therapeutically, the authors would only say this much in this paper: that the results of their experiments place the selected diet-tables in a new light. All those articles of food considered difficult of digestion are known to be great lactic acid producers. The addition of hydrochloric acid not only supplies the essential acid of digestion to the stomach, but causes the lactic acid to disappear, thus removing a factor of delayed or prolonged digestion. The authors are still continuing their investigations, and promise to make known the further results in a future paper.—*New York Medical Journal*, February 6, 1886.

The Structure of the Pancreas.—Mr. Vasily Sokoloff, soliciting the degree of "magister of veterinary sciences," selected for his inaugural work the study of the minute structure of the pancreas during its rest and action (*St. Petersburg Inaugural Dissertation*, 1883, pp. 48; and the *Arkhiv Veterinarnykh Nauk*, Dec. 1883). The structure of the quiescent gland was examined in dogs, cats, rabbits, horses, cows, sheep and pigs. To study the alterations taking place in the gland during its physiological action, he killed dogs, cats and rabbits at certain periods (4, 5, 7, 10, 15, 20, 40 hours) after the ingestion of food or after a subcutaneous injection of pilocarpine. The specimens were hardened in chromic acid, spirit of wine, tincture of iodine, osmic acid, muriate of gold, and Müller's fluid, and then stained with hæmotoxylin or picrocarmine. The results of these investigations (carried out in Professor F. N. Zavarykin's laboratory) are summed up by the author as follows:

1. The changes in the structure of the pancreas during its action, show that the process which takes place in it is identical with that observed in other glands of similar anatomical structure and function (salivary, pepsine glands, etc.).

2. During its physiological rest, the secretory cells become granular and increase in their bulk ("as if swell"), their homogeneous zone being considerably diminished, or disappearing altogether.

3. When the pancreas steps into the physiological action, the cells in which the homogeneous zone has disappeared, or is present only in the shape of an extremely narrow marginal strip, undergo disintegration, while the remaining cells show a diminution of the granular, and an increase of the homogeneous zone.

4. At the same time, on the periphery of the alveolus there appear small homogeneous wedge-shaped cells, which are gradually lodged between the former elements, and which replace the secretory cells destroyed. [They are identical with Podvysotzky's "cuneiform cells," though viewed by Sokoloff in a different light.]

5. Simultaneously, there appear round corpuscles in the interstitial tissue of the gland.

6. These round cells (leucocytes), probably, serve

as a source from which the homogeneous cells in the alveoli are originated.

7. Therefore, the destroyed secretory cells, to all probability, are replaced by new ones, which are developed from leucocytes wandering in the glandular interstitial tissue. So far Mr. Sokoloff.

In a preliminary note in the *Vratch*, No. 21, 1883, p. 323, DR. KLAVDIA ULEZKO opposes him from the beginning to the end of the matter, pointing to the results of her own investigations conducted in the laboratory, and under the guidance, of Professor M. D. Lavdovsky. Her statements may be given thus:

1. No destruction of the secretory cells ever takes place during the physiological action of the pancreas (as well as of the salivary glands, as proved by Professor Lavdovsky in opposition to Professor Heidenhain).

2. Hence, generally, there is no occasion to look about for any substitutes for the pancreatic secretory cells in relation to the regeneration of the latter; this would be the more superfluous, as the secretory cells are capable of proliferation themselves (as was first proved by Gaule).

3. No grounds whatever may be adduced in support of Sokoloff's views concerning the regeneration of the pancreatic cells from leucocytes. The active condition of the gland does not stand in any connection with migration of leucocytes. The latter—as far as the normal gland is concerned—are present only in too scanty numbers to be taken into any account. No transitory forms or links between leucocytes and the secretory cells are (or could possibly be) observed. Sokoloff's "homogeneous cells" are, probably, best explained by some defective methods of examination.

4. Podvysotzky's "cuneiform cells" have no relation whatever to leucocytes, since they are nothing but artificial products.—*London Med. Rec.*, Jan. 15, 1886.

GENITAL TUBERCULOSIS.—The interesting subject of genito-urinary tuberculosis was dealt with by DR. SIMMONDS at a meeting of the Medical Society of Hamburg (*Deutsche med. Woch.*, 1886, No. 1). Of sixty cases of tuberculosis of the male generative organs which he had observed, thirty-five had been examined after death, and amongst these latter, the epididymis was affected in thirty-one cases, the vesiculæ in twenty-nine, the prostate in twenty-six, and the testicle in sixteen—the vesiculæ and prostate being sometimes the starting-point of the disease. In cases of bilateral tuberculosis of the testicle, it is generally believed that the one organ has been infected by the other through the vas deferens and the prostate, but in two out of five such cases the intra-pelvic organs were entirely free from the disease, which could have been eradicated by a complete castration. As to genito-urinary tuberculosis, it was stated that the origin of the disease was more frequently in the genital than the urinary tract. Of fourteen such cases, the kidneys were involved in only nine, the bladder in thirteen, the vesiculæ in thirteen, the prostate in twelve, and the epididymis in twelve; and clinical evidence was adduced in support of the view that tuberculosis of the urinary bladder is mostly a sequel—even after some years' interval—of tubercular epididymitis. Returning to the cases of genital tuberculosis, it was stated that in thirty-one out of thirty-five the lungs were more or less involved, but whether primarily or secondarily could not be determined. There were three cases of acute miliary tuberculosis apparently due to caseous deposits in the genital organs. The majority of the patients were between the ages of 25 and 50; but the list of sixty included two children aged 2 and 7 years respectively, and twelve cases between the ages of 50 and 80. The duration of the disease was most variable, in some cases lasting for years, in others only a few months. The clinical features were described, and the differential diagnosis detailed. Instances were given of retention of sexual power even in bilateral disease, and in two cases of unilateral disease healthy children were procreated. No evidence of transmission of the disease to the wife was found, and Dr. Simmonds confirmed the opinion that such transmission did not occur. As to etiology, the histories of twenty-six cases showed inherited tendency in thirteen; eleven had suffered from gonorrhœa, four of which were associated with epididymitis; and in four there was a history of traumatism; and it was concluded that traumatism, gonorrhœal or other inflammation, may evoke genital tuberculosis in one who is already the subject of tuberculosis or is hereditarily disposed to it. The prognosis in unfavorable, but castration may be performed where there is no evidence of involvement of the pelvic organs, and only slight changes in the lungs.—*The Lancet*, Jan. 23, 1886.

COBRA-POISON.—A paper by DR. R. NORRIS WOLFENDEN, giving the results of a very thorough and careful chemical examination of the poison of the Indian cobra (*Naja Tripudians*), was read at the Royal Society on December 17. Dr. Wolfenden appears to have shown conclusively that the poisonous properties of the venom are due to its albuminous constituents, and that it does not contain any alkaloidal body nor any poisonous acid. The toxic properties of the venom are lost when the albuminous bodies are completely removed by processes well known to chemists, or are destroyed by the action of permanganate of potash, which oxidizes the albuminous bodies into oxysulphonic and other allied acids. Three kinds of albumen are present in the venom. Two of them, globulin, which is in largest quantity, and syntonin, act upon the respiratory centre; while the third, serum-albumen, which exist only in very small quantities, probably produces paralysis of the motor centres. Whether the poisonous properties of these albumens are due to some peculiarity of their constitution, or whether some hypothetical poison is linked with albumens of ordinary constitution, has not been ascertained; but the possibility of the proteids of the venom being themselves poisonous is rendered more probable by the observations of Schmidt-Mulheim and Albertoni, who have shown that ordinary peptone, injected into the blood, may produce poisonous effects, causing a remarkable fall in blood-pressure, and destroying the coagulating power of the blood.—*British Medical Journal*, Jan. 9, 1886.

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THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, FEBRUARY 20, 1886.

RE-INFUSION OF BLOOD AFTER AMPUTATION.

In the *British Medical Journal*, of January 30, MR. JOHN DUNCAN, of Edinburgh, has an article on "Re-infusion of Blood after Primary and other Amputations." In this paper he gives an account of a case of railway injury, in which the left leg had been crushed, amputation being required at the lower third of the thigh. The man had lost a large amount of blood on account of a tourniquet not being screwed up tight enough. Eight hours after the injury the patient was pallid and collapsed, with a quick, irregular, and fluttering pulse, when it was perceptible. Alcohol, injection of ether, and elevation of the limbs had scarcely any effect, and it seemed impossible that he could survive an amputation. There seemed to be some hope in intravenous injection, however, and it occurred to Mr. Duncan that the blood lost during the operation might be utilised.

The patient was anæsthetized with chloroform, followed by ether (a method which, if the reader will pardon the digression, certainly has very great advantages in many cases). The limb was rapidly removed, and the blood which fell from it (about three ounces) was caught in a dish containing a solution of phosphate of soda. "After the arteries had been tied, it was difficult to say for a time whether the patient was dead or alive; but I proceeded to inject the blood and phosphate of soda, mingled with distilled water in the last syringeful to increase the quantity. In all, about eight ounces were thrown into the femoral vein on the face of the stump. The quantities are not exact, because the graduated dish was necessarily flat to catch the blood, but are correct within a drachm, or at most two." The patient was put to bed, in front of a fire, and teaspoonfuls of weak brandy and water were given frequently. By the time that he was in bed the pulse had become very perceptible, steadily improved during the night, and the man recovered.

It is apparent that the dominant idea in this procedure is to save and utilise the blood, which would otherwise be lost, flowing from the amputated limb. The loss or saving of a few ounces of blood in a case of collapse may make all the difference of death or life. "No doubt," says Mr. Duncan, "a simple saline fluid may for a time supply the means of working to the empty heart and vessels; but, in my experience, the benefit is only temporary—for one reason, because it is essential that the blood-forming organs should act; and they require suitable nourishment, like every other part of the frame." We know how difficult it is to empty shattered limbs of blood, and a small or large quantity may always be caught at the time of incision and when the arteries are tied. Mr. Duncan has now carried out his method in a sufficient number of cases to permit him to speak with confidence as to its safety and value. The idea occured to him, he says, from a considerable experience in transfusing blood from one person to another, and seeing how imperfect and sometimes dangerous are the ordinary methods of transfusion. Mr. Duncan relates an interesting case in which his house-surgeon, Dr. Carmichael had himself bled to six ounces, and used the blood, mixed with the phosphate of soda solution, in a case of intra pleural hæmorrhage after resection of a rib for empyema. The patient, though apparently moribund, rallied quickly and recovered.

The solution of phosphate of soda used in one case was of 5 per cent., and one part of this was added to three parts of blood; but our author thinks that a slightly larger proportion is advisable, and has increased it in amputation cases. In one case the soda solution was unintentionally made of double strength, and the mixture remaining after re-infusion was not coagulated at the end of half an hour. (The soda solution, it need scarcely be said, is used to prevent coagulation of the blood). For the introduction into the vein of the receiver Mr. Duncan uses a short glass tube, of the size of a No. 6 catheter, having a pen-shaped point. "To its outer end, made slightly bulbous, about two inches of India-rubber tubing is attached. A simple glass syringe, holding four ounces, whose nozzle fits the tubing, is perfectly effective." The temperature is kept up by surrounding it (the tube or syringe?) with boric lint, wrung out of hot water. The phosphate of soda solution is kept

in a graduated glass vessel floating in warm water, and into this the blood is received. The glass is purified by prolonged immersion in a solution of bichloride of mercury, and washed with aseptic water after removal from the antiseptic solution, and before being used.

When the operation is performed after an amputation, "the most convenient vein is selected on the face of the stump, the glass point is inserted, and a catgut ligature put round it. (The ligature is used to hold the glass point in the vein, and prevent escape of blood). While the process of ligaturing the arteries is going on, the blood is caught by one assistant, who adds the soda solution as required, and is slowly injected by another. There is no time wasted, and the amount put into the circulation is precisely proportioned to what the patient would otherwise have lost, *plus* what amount of saline solution the surgeon may think right and appropriate to the case." This process of reinjecting the patient's own blood, very probably says Mr. Duncan, is incompatible with the use of spray or irrigation during the operation.

The method of preventing coagulation by phosphate of soda, and injection by means of the apparatus described, has been used by Mr. Duncan in several cases of pernicious anæmia. While we may justly object to applying the term re-infusion in such cases, the blood being obtained from another person, we must recommend the method for these cases in preference to the ordinary methods of transfusion of blood. In such cases a vein in the arm of the patient is exposed, and under it a double thread of catgut is passed. Blood is then drawn from the donor into the dish containing the phosphate of soda, and the two are gently mixed by means of a glass rod. An assistant fills the syringe while the operator opens the exposed vein of the patient, the lower thread of catgut being gently pulled upon to prevent hæmorrhage. The tube is now inserted, the upper thread tied around it with one knot, the lower one being secured and cut off short. The blood is then slowly injected, "the India-rubber tubing being pinched when the syringe required to be refilled." The upper piece of catgut is tied and cut short when the operation is finished, and the wound is stitched up.

In cases of anæmia care must be taken to finish the injection before the blood coagulates, as the soda solution will only prevent coagulation for a certain length of time; and, on the other hand, the injection may be made too rapidly for the patient. Obviously neither of these errors can be well committed in employing the method after an amputation. Inasmuch as Mr. Duncan unintentionally doubled the proportion of soda solution in one case, and found that the blood remained fluid for half an hour after being mixed with the soda, there seems to be no objection to making the proportion of soda solution greater than one part to three. Could not this method be employed in cases of post-partum hæmorrhage? While there are certain objections that may be raised to re-injecting the blood which has been lost in these cases, there is certainly no reason why the blood should not be obtained from another person. Of course the amount of blood lost in severe cases of post-partum hæmorrhage is so large that the patient might die before the mixture could be properly made unless every preparation had been made. Still, this method may be carried out as quickly as some of the procedures that are recommended and used in these cases. Certainly for the treatment of collapse after post-partum hæmorrhage it must be regarded as more safe than the intra-venous injection of milk, and very much more quickly performed. There is also a question whether it is not more to be recommended in cholera collapse than the intra-venous injection of salt solutions, which has been so much discussed in the foreign journals during the past two years.

THE RELATION OF CHOREA MINOR TO ACUTE ARTICULAR RHEUMATISM AND ENDOCARDITIS.

The latest contribution to this vexed question is in the *Berliner Klinische Wochenschrift*, No. 2, 1886, from the pen of DR. E. PRIOR, Privat Docent at Bonn. He gives the result of the painstaking investigation of 92 cases of chorea minor with special reference to its connection with endocarditis and acute articular rheumatism. In 87 out of the 92 cases the chorea was not complicated by any disease of the heart, nor could there be discovered the slightest trace or history of previous attacks of rheumatism. In one case, that of a girl 10 years of age, the patient was said to have had some affection of the heart several months before, but reliable facts concerning it could not be obtained. On the other hand, there was unmistakable evidence of an attack of rheumatic arthritis in the fingers of the right hand two weeks prior to the outbreak of the choreic manifestations.

Since experience teaches that evidence of endocarditis may be discovered *post mortem*, even when the most thorough physical examination *intra vitam* has failed to detect its existence, Prior thinks this case may be not unreasonably classified among those in which there is a combination of the three diseases in question. In four other cases there was valvular

disease of long standing. In three of them mitral insufficiency had been diagnosticated years previously, but there could not be ascertained any history of rheumatism. The fourth patient, a girl of 19, had suffered with inflammation and swelling of the knee-joint several years before. Although a definite connection between the valvular lesion and the chorea ought not to be asserted in these cases without further proof, Prior yet inclines to the opinion that the heart-disease may have borne some etiological relation to the St. Vitus's dance. It is not impossible that a fresh endocarditis may have been lighted up at the time of the commencement of the chorea. It appears, therefore, that in but 5 out of 92 cases, that is 5.4 per cent., can there be any suspicion of a connection between the chorea and endocarditis and rheumatism; while in 94.6 per cent. of the total number, the chorea was absolutely free from these complications.

There are other facts, also, which agree with his statistics, in Prior's opinion, in their opposition to Rogers's theory, that chorea and rheumatism are different expressions of one and the same pathological law. It is notorious that St. Vitus's dance is a disease of childhood by preference, whereas rheumatism, as a rule, attacks adults between the ages of 20 and 35 years. Moreover, chorea occurs most frequently among girls, while rheumatism and endocarditis resulting from rheumatism are most frequently observed in males. Furthermore, in those cases of chorea in which the disorder seems to have its origin in imitation of choreic companions, and "epidemic-like, invades whole schools," it certainly would be absurd to claim that all of its victims have been subjects of rheumatism or rheumatic endocarditis.

On the whole, therefore, Prior inclines to the opinion that any etiological relation existing between these diseases and chorea, in so constant and definite a manner as to form a law, does not exist. There cannot be in choreic individuals some diathesis, as suggested by Begbie, Watson, Branson and others, which finds expression sometimes in rheumatism, at other times in St. Vitus's dance. It is not unlikely, he thinks, that in some instances the disease may result from reflex irritation of the cardiac distribution of the phrenic nerve, as by a greatly enlarged heart. This is in accord with the theory promulgated by Bright. In other cases Prior believes it not improbable that emboli may occasion choreic manifestations, as maintained by Kirkes, Tuckwell and others. He does not, however, support Broadbent's explanation, which would attribute the occurrence of chorea to capillary embolism in the immediate vicinity of the corpora striata.

Dr. Prior's paper cannot be said to contribute any facts particularly new or original. It is in accordance with the position pretty generally taken by his countrymen, which is conservative. Germain Sée and Roger are ardent defenders of the rheumatic origin of chorea, or rather, of the identity of the two diseases. Their figures show a strikingly large proportion of choreic cases complicated with rheumatism, and Roger goes so far as to declare that in every instance of St. Vitus's dance it has been preceded, accompanied or followed by rheumatic symptoms. There is considerable lack of uniformity on the part of German observers as regards the etiology of the disorder, but on the whole they are opposed to all the conclusions of their French neighbors. Of 252 choreic patients observed by Steiner, of Prague, only 4 gave a history of rheumatism. The English are also somewhat divided, but on the whole occupy very much the same ground as the French. The contradictoriness of statistics concerning the relation between the two diseases is curious. In 1846 Hughes published a report of 108 cases, of which but 14 gave evidence of rheumatism together with the chorea. In 1856 he published 209 other cases, 104 of which were carefully examined. In all but 15 of these either rheumatism or rheumatic endocarditis existed. It is probable that the French and English observers have been somewhat misled in their conclusions by the great frequency with which rheumatism occurs in their climates. Diversity of opinion likewise exists in this country. Jacobi is reported to agree with Roger, while J. Lewis Smith states that probably the majority of American observers incline to the conservative judgment of the Germans.

The subject is an interesting and highly important one. Notwithstanding the investigation it has received, it does not appear to be any nearer solution now than years ago. There is ample opportunity for the clinical study of the disease, but it so seldom proves fatal, that the opportunity for a *post mortem* investigation of its morbid anatomy is limited. Hence we fear the etiology of chorea minor will continue for years to come to be as great a riddle as at present.

EDUCATION FOR THE WORK OF LIFE—"THE MAIN QUESTION IS, WHAT SHALL A BOY STUDY UNTIL HE IS CAPABLE OF DETERMINING WHAT PROFESSION TO CHOOSE?"

This question forms the closing sentence of a familiar letter from a valued correspondent who had been advocating a thorough and protracted study of Greek and Latin, or the so-called *classical* course, as

the most essential preparation for eminence in medicine or any other profession. The question plainly implies that neither the boy nor his parents or guardians can properly determine what profession or calling in life will be best suited to his tastes and mental qualities, until he has attained an age sufficient to give a degree of maturity of judgment; but in the meantime the boy's education must be progressing, and we are asked, what shall he study?

We answer, *first*, that every boy should study thoroughly, persistently and accurately the elementary branches that constitute the foundation of all education. By the time he has become well trained in the correct use of his own native language (the English) in reading, writing and speaking it with ease and accuracy, and has acquired a reliable knowledge of the more elementary mathematics, geography, and history, his mental faculties will have become sufficiently developed to enable an intelligent parent or competent teacher to discern clearly the important natural mental aptitudes and inclinations that characterize the boy. And on a fair appreciation of these must be founded, not a choice of a profession or calling for life, but the further direction of his education, in the most profitable manner, until he reaches the age and knowledge of the professions and occupations of life to enable him to make his own choice.

Perhaps the most important era in the educational history of every boy is the one we have just indicated as completing a knowledge of the fundamental branches of all education. If his real mental aptitudes are correctly appreciated, and he is permitted to enter upon such further studies as are congenial to him, whether they be in the direction of the physical and natural sciences; in the field of literature, history and art; or in the acquisition of ancient and modern languages, he will make good progress and will acquire real mental discipline, development, and useful knowledge for the work of after life. To ask us to name some one definite course of study for all our boys, or even for all who are expected to choose some one of the professions, would be very like asking us to select one pattern and size of shoes to fit all the boys alike. Almost all our best universities, colleges and higher schools provide not only the full *classical* course, but the "Latin scientific," and scientific courses, thereby affording a proper selection fitted for the different mental tastes and aptitudes of different scholars—and that boy will attain the highest eminence in whatever pursuit of life he chooses, who is guided at the proper age into that course of studies which is most congenial to his natural mental qualities. To insist that a boy shall be drilled for seven or eight years in Greek and Latin when every lesson is about as repugnant to him as an old-fashioned dose of an infusion of senna and salts, is an admirable method for making him an adept in the art of "shirking" and nothing else.

It may possibly be thought by some that, in discussing this subject of early education, we are treading upon extra-medical ground. But when it is remembered that the physician must deal with both bodily and mental ailments, and that one of his highest duties and most proper studies is the prevention of disease, and showing how it may be prevented, it will be evident that the discussion of the faults of education is certainly within the true professional field. Physicians, and intelligent people generally, know that physical constitutions are different, and it seems strange that, in spite of the cumulative evidence of centuries, it is so seldom that people—and "educators" especially — recognize the fact that mental aptitudes, tastes and powers are as different, or more so, than physical constitutions. It will be a bright day for humanity when parents and teachers open their eyes to the fact that boys are not pegs of the same shape and size, all to be stuck into the same hole. No two trees are alike, and no two leaves on the same tree; and common observation shows that even the lower animals, of the same kind, differ in traits, instincts and mental capacity. Who has ever seen two brothers, even twins, alike in mental capacity and aptitude?

ALFRED C. POST, M.D., LL.D.

In the death of DR. ALFRED C. POST, M.D., LL.D., which occurred at his home in New York, of cystitis, on Febuary 7, America has lost one of her most scholarly and distinguished surgeons, and one who, though he leaves no huge volume as a monument and evidence of his work and learning, will long be remembered for his marked dexterity and precision in operating, and his great mechanical ingenuity in devising new operations, new instruments and new appliances. With these qualities added to an encyclopædic knowledge of the literature of his profession, and a rare goodness of heart and love for his fellowmen, it is not remarkable that he should have attained such eminence in his profession, or that he continued his work almost to the day of his death, having been in the active practice of medicine for almost fifty-six years. As is well known his work of late years has been mostly in the field of plastic surgery, and his contributions to this subject have been very many and very important.

SOCIETY PROCEEDINGS.

CHICAGO GYNÆCOLOGICAL SOCIETY.

Regular Meeting, December 18, 1885.

THE PRESIDENT, DANIEL T. NELSON, M.D., IN THE CHAIR.

W. W. JAGGARD, M.D., EDITOR.

DR. W. W. JAGGARD read a paper entitled

TWO RECENT MODELS OF THE AXIS-TRACTION FORCEPS.

The object of the paper was not the description of some modification by the writer, although such a contribution to the literature of the subject would be perfectly legitimate in view of Pajot's witty remark to the effect "that he does not reproach a man for having invented a forceps, since that might happen to any one."—(*Barnes.*)

Breus and Felsenreich, formerly assistants respectively in the third and first obstetrical clinics of the Vienna General Hospital, have recently made important alterations of Tarnier's axis-traction forceps. The importance of these modifications was so great that no apology was demanded for calling attention to the instruments.

As the result of the labors of Sir J. Y. Simpson, Nägeli, Busch, Levret and others, the low forceps operation may be regarded as a comparatively perfect operative procedure, both as regards instruments and modes of operation. The case is different with the high forceps operation. This operation is always difficult, and sometimes dangerous, with the instruments mentioned. The cause is obvious. The applied force can be resolved into two components, one in the direction of the axis of the plane of the inlet, the other perpendicular to the first, directed towards the posterior surface of the symphysis. The first component is alone active in causing the descent of the head; the second makes the extraction more difficult, and exposes the maternal tissues between the head and symphysis to traumatism. As remarked by Schauta (*Grundriss der Operativen Geburtshilfe*, Wien., 1885, p. 162), "the unphysiological, and therefore mischievous element in the operation of the forceps, as compared with the effects of uterine contractions, when the head is at the inlet, consists in the fact that the forceps draws the firmly-held head in a direction which it can never follow, while the uterine contractions simply drive the head into the pelvic cavity, and permit it after that to seek the direction of least resistance." The older obstetricians, fully recognizing these facts, attempted to apply the power to the classical forceps in such a way as to secure a more favorable direction of traction. Osiander (1799) and Stein, Sr. (1805) may be mentioned among the older obstetricians who devised instrument for making traction in the axis of the inlet. Hermann (1844) (Kilian's *Armamentarium lucinæ novum*), constructed an instrument in which an iron lever is attached to the lock. J. P. Hubert (1860) attached a vertical iron lever to the extremities of the ordinary forceps. This lever was subsequently attached to the lock. Eugène Hubert, his son, constructed an axis-traction forceps with parallel branches and a sharp perineal curve. Chassagny, Joulin, Pros, Poulet, Moralès Apaca (1871) and others, have constructed various types of axis-traction forceps at a more recent period. In many of the modern French instruments an attempt has been made to apply some of the well-known principles of veterinary surgery.

In 1877, Tarnier, following in the wake of Hermann, Hubert, and the more recent French investigators, constructed and published a description of his well-known instrument. Since that time, he has produced more than thirty distinct models. His last model consists of the classical forceps of Levret (without a perineal curve), and axis-traction rods attached to the posterior, inferior border of the blades, or spoons. Tarnier claims a number of advantages for his instrument over any other axis-traction forceps. He claims that it is superior to the classical instruments in the following particulars:

1. It is possible to apply traction in the direction of the principal pelvic axis.

2. Sufficient mobility is conferred upon the child's head to permit it to seek its way through the pelvis in the direction of the least resistance.

3. The handles indicate to the operator the direction in which traction should be made.

With reference to the first proposition, it may be said that traction with Tarnier's forceps is not made in a curved line, accurately coincident with the principal pelvic axis, when the head is at the inlet. Nor is traction in this direction absolutely necessary, as remarked by Schauta, seeing that the resultant of the forces, developed by uterine contractions, and the resistance opposed by the pelvic floor, does not propel the head in the direction of the principal pelvic axis.

The handles, as indicators of the direction in which traction should be made, are of relatively slight value.

On the one hand, the operator who is at all qualified to apply the forceps to the head at the inlet, ought to have a correct conception of the direction in which traction should be made. On the other hand, strict attention to the handles may prevent the operator from observing a number of important events, ex. gr., the relation of the head to the vulva, slipping of the instrument, etc. (Schauta.)

Finally, the handles are not a correct indicator of the direction of the principal pelvic axis.

The advantage of Tarnier's forceps over its predecessor's lies in the mobility conferred upon the fœtal head by the joint, uniting the blades and the so-called axis-traction rods. The head does not follow the direction of the principal pelvic axis, but seeks the path of least resistance. In consequence, the operator is spared the fatigue of unnecessary effort, and the mother, the dangers of traumatism from violent traction.

I. Breus has recently constructed an instrument which has a great advantage over the forceps of Tarnier, in that a greater degree of mobility, during traction, is conferred upon the head. The continuity of the blades (Löffel) is interrupted at, and below, the fenestræ, by a strong flat joint, which admits of

movements in the sagittal direction, and corresponding variability in the angle at which traction is applied to the head. The superior ribs of the instrument are prolonged, and turned upward like spurs. These spur-like prolongations are joined by a metallic rod in order to preserve a certain parallelism of the blades. Apart from these peculiarities the instrument is identical with the original model of Sir James Y. Simpson's forceps.

This instrument, devised by an obstetrician of large experience, is employed on an extensive scale at Vienna, in Gustav Braun's obstetrical clinic. Schauta (*Grundriss der Operativen Geburtskilfe*, Wien, 1885, p. 164, et seq.) recommends the instrument as the most perfect axis-traction forceps in existence, to his classes at the University of Innsbruck. Fürst's recent favorable note on Breus's forceps in the *Centralblatt für Gynäkologie*, 1885, is well known.

II. *Felsenreich's Modification of Dr. Alexander Simpson's Modification of Tarnier's Axis-Traction Forceps.*—In 1880, Dr. Alexander Simpson, of Edinburgh, sent to Dr. Carl Braun a modification of Tarnier's axis-traction forceps, which at once superseded the French instrument in the first obstetrical clinic of the Vienna General Hospital. Simpson substituted Sir J. Y. Simpson's original model of the classical instrument for Levret's. The compression screw is located on the upper third of the superior surface of the handles. Comparatively unimportant modifications were made with reference to the traction-rods, and the hard-rubber handle, into which the traction-rod fits. Felsenreich has materially enhanced the value of Dr. Alexander Simpson's instrument by a number of important alterations.

Felsenreich's modification of Dr. Alexander Simpson's axis-traction forceps, as shown by the model presented, manufactured by Mr. J. Leiter, of Vienna, during October, 1885, consists of the following parts:

1. A practically unaltered model of Sir James Y. Simpson's forceps (*Wiener Schulzange*).

2. Button-hole perforations, one behind each fenestra, into which traction-rods are inserted, and maintained by the buttons on the ends of the rods.

3. A removable compression thumb-screw, which sinks into a groove made in the extremities of the handles of the Simpson forceps.

4. A hard-rubber handle for the traction rods. The arrangement for the insertion of the traction-rods into the hard-rubber handles differs from the mechanisms in Tarnier's and Alexander Simpson's axis-traction forceps.

The attachment of the compression-screw to the ends of the handles, and certain changes in the curve of the axis-traction rods, have been made at a comparatively recent period, but prior to 1883.

Dr. L. E. Neale, of Baltimore, published an article in the September number of the *American Journal of Obstetrics*, 1885, entitled "An Obstetric Forceps." In this paper Dr. Neale describes an axis-traction forceps, devised by himself, which differs in no essential particular from Felsenreich's modification of Alexander Simpson's instrument. Editorials have appeared in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, September 26, 1885, and the *Therapeutic Gaeette*, December 15, 1885, calling attention to the facts, that a forceps, identical with the instrument devised by Dr. Neale in all essential details, had been constructed several years before in Vienna by Dr. Felsenreich, and that Dr. Neale had probably forgotten the existence of that instrument, although he had seen it in active operation in the lying-in ward of Carl Braun, in various courses on operative obstetrics, and in the shop of Mr. J. Leiter, the instrument maker to the Vienna General Hospital. The only criticism that the writer would make, with reference to these editorial notes, was, that Dr. Felsenreich, not Dr. Neale, applied the compression thumb-screw to the ends of the handles. Dr. Neale has made some trivial modifications in the hard-rubber handles and the mode of insertion of the traction-rods. Dr. Neale made no allusion to Alexander Simpson's modification of Tarnier's instrument in the paper mentioned, and his allusion to Dr. Felsenreich's suggestion of the button-hole joint is, to put the case very mildly, disingenuous.

In conclusion, Dr. Jaggard said that he was of the opinion that the axis-traction forceps of Breus and Felsenreich were superior to the most recent model of Tarnier's, or any other axis-traction forceps that had come under his observation. He requested that the discussion be limited to the comparative merits of the forceps presented—Breus's and Felsenreich's—and other recent models of the axis-traction instrument.

DR. JOHN BARTLETT said that he had devised an axis-traction forceps in 1880, identical in principle with the instrument constructed in 1860 by the elder Hubert. His attention had been first called to the coincidence by Professor Lahs's monograph on *Die Achsenzug-Zangen*, Stuttgart, 1881.

DR. HENRY T. BYFORD thought the instrument described by Dr. Neale in the September number of the *American Journal of Obstetrics*, 1885, was identical in all essential particulars with Felsenreich's modification of Alexander Simpson's instrument devised two or three years before.

DRS. PHILIP ADOLPHUS, A. REEVES JACKSON, H. P. MERRIMAN and H. P. NEWMAN had never observed indications for axis-traction forceps; had never employed such instruments, and thought they were unnecessary.

DR. JAGGARD said he had no desire or intention to discuss the general subject of axis-traction forceps, and had expressly requested that the discussion shoud be limited to the consideration of the relative merits of the instruments presented for examination, (Breus' and Felsenreich's) and other modifications of the axis-traction forceps. He thought that gentlemen of limited experience in cases indicating the high forceps operation, and particularly those who had absolutely no experience with axis-traction instruments, should be temperate in their criticism. Carl Braun, Pajot, Charpentier and others had practically rejected such instruments, but only after serious and experimental consideration of their merits. On the other hand, many younger obstetricians, including Schauta, Felsenreich, Breus, Ehrendorfer, thought there were cases in which they might be profitably employed.

Dr. Henry T. Byford then read a report of a case of

PELVIC ABSCESS, WITH REMARKS UPON THE TREATMENT.

Mrs. T., aged 25 years; married five years; German descent; of nervous temperament; small and slight in figure, but in good general health, consulted me, during the fall of the year 1884, for sterility and dysmenorrhœa. She had never menstruated without pain, but had otherwise enjoyed good health. An examination revealed a small uterus and cervix, with acute anteflexion and consequent apposition of the anterior and posterior uterine walls. Slippery elm tents, used about once in eight days, alternated with glycerine tampons, had for their effect a gradual relief of the dysmenorrhœa.

About the middle of the following February, I was called to her house to treat her for a severe attack of pelvic cellulitis, contracted a week before while returning home from a dance. The whole pelvic connective-tissue seemed to be involved, and several large tender lumps could be felt externally in the left iliac region.

Six weeks from the beginning of the attack, an abscess opened into the anterior wall of the rectum, about two inches from the external anal orifice. On account of the extreme debility of the patient, her horror of operative procedures, and the absence of any well-marked fluctuation, all surgical interference with the suppurative process had been out of the question. Palliative treatment was instituted and continued without effect until the 6th of June. In the meantime the pulse remained in the neighborhood of 120° F., and the temperature fluctuated between 99° F. and 102° F.; attacks of acute suffering and septicæmic diarrhœa required opiates for their relief; the bacillus tuberculosis was discovered in the pus; yellow pigmentary deposits covered her face, and emaciation became extreme, her weight ranging between eighty-two and eighty-three and one-half pounds. Her courage begain to fail, and finally after the concurrent recommendation of the consultants, Drs. Wm. H. Byford, J. E. Owens, George M. Chamberlin and Martin Matter, she consented to an operation. Accordingly, on the 6th of June, Dr. Wm. H. Byford operated according to his usual method in such cases. After etherization, he forcibly dilated the sphincter of the anus, tore open the fistulous track with the finger, and then enlarged the abscess in the same manner, in the direction of the lowest part of the cavity, until it readily admitted two fingers. He then made a digital examination, and found the abscess to extend across the pelvis, behind the uterus and broad ligaments, above the level of the fundus uteri on the left side, and to be filled with bands and projecting masses of granulation-tissue of about the consistency of freshly coagulated blood. Previous treatment, except to diminish and control the septicæmia, had evidently been a complete failure. All of this medullary tissue was then scooped out with the finger and the cavity thoroughly cleansed with a two and a half per cent. solution of carbolic acid.

The higest temperature after the operation was 99° F., on the day following. Perfect drainage had been secured, for at the time of each dressing no pus was found inside of the abscess. The cavity of the abscess was treated by irrigation with antiseptic solutions, insufflation with iodoform and the introduction of cupric sulphate.

Early in September she was attacked with the then prevalent epidemic, dysentery, and died on the 23d instant. At the post-mortem examination, made about thirty hours after death, I was somewhat hampered on account of a promise, exacted by the husband, that no organ should be taken out of the body, and by the fact that I had but thirty minutes for work before train time. The body had again become extremely emaciated. Abdomen was flat. An incision was made from a little above the umbilicus to the pubic bone. The pelvis was filled posteriorly with a solid mass of plastic tissue, which had drawn the uterus backwards to within about half an inch of the sacrum, so as to put the anterior vaginal wall upon the stretch, and had buried the uterus and other pelvic organs in its substance. Both round ligaments were seen issuing from this mass. It was necessary to cut down about half an inch before reaching the depressed uterus, and to tear through solid tissue behind it to arrive at the rectum below. The finger broke through into the rectum, behind the dimpled cicatrix that marked the site of the former outlet of the abscess. The left broad ligament was then found to be represented by, or inclosed in, a tough band half an inch thick antero-posteriorly, extending from the uterus to the left side of the pelvis. The left ovary could not be found. A small flat piece of what seemed to be ovarian tissue was found adherent to the bladder on the right side. The right broad ligament was apparently disorganized and inseparable from the plastic deposit. The rectum was held inflated at the point where it issued from the pelvis, was dark-colored and injected on its external surface, and blackish and softened on the internal. Neither the appearance nor the odor of an abscess could anywhere be discovered.

There seem to have been two hinges, as it were, upon which the treatment of this abscess turned: first, the operation per rectum; second, the cauterization by sulphate of copper. Both secured a large opening at the lowest portion of the pyogenic cavity, and brought away the unhealthy granulation-tissue. Had the patient consented to have the unobstructed outflow of the pus maintained by one or two subsequent dilatations, similar to the first one, the cure would undoubtedly have been more rapid. As it was, the contracting sphincter and abscess outlet rendered the drainage and irrigation imperfect. Progress toward recovery was, however, again inaugurated upon the melting away by the sulphate of copper of the newly and imperfectly formed cicatricial tissue, reproducing the opening made at the time of the operation and by the destruction of the degenerative deposits and cauterization of the chronic pyogenic surface. The only kind of treatment preferable to this free drainage and clearing out method is the strictly antiseptic, which, after the pus has once found a way into the rectum, can only be accomplished by

first closing this septic inlet. The treatment by a counter-opening in the vagina is much less preferable, because a recto-vaginal fistula, difficult of cure, and liable, like anal fistula, to inoculate the system with tuberculosis, would be left.

The treatment by abdominal incision cannot for a moment be entertained, for at least two reasons: 1. It is necessarily followed by a recto-abdominal fistula of great length, which is incapable of being promptly cured, and is apt to become an unfailing source of systemic infection. Those patients already operated upon, as far as reported, have usually either died shortly, or within a year or two, imperfectly cured. They would have, on an average, lived about as long without the operation. In fact, it is not impossible that one such, whom I had, previous to the operation, an opportunity of watching for a short time, would finally have recovered through the process of nature. To operate as does Lawson Tait, before the abscess has discharged, and then treat it antiseptically through its single opening, is an entirely different matter.

2. The danger of an abdominal incision should never be incurred without a prospect of compensation in the way of bettering the patient's chances of recovery. Neither theory nor practice as yet prove such compensation to be attainable.

In some cases one dilatation per rectum, without after-treatment, has sufficed for a cure; in other cases two or more, with subsequent antiseptic irrigations, have become necessary. But as a general rule it may be said that, unless instituted too late, the procedure is safe and the recovery sure.

DR. CHRISTIAN FENGER said that when a peri-uterine abscess points somewhere in the vagina around the lower part of the uterus, no surgeon would, of course, think of doing anything but opening the abscess, inserting a drainage tube, and by washing out, endeavoring to effect the closure of the cavity. But in some cases the opening into the vagina is just as ineffective as a spontaneous opening into the rectum. In obstinate cases of this kind, laparotomy, at a later period, will have to be performed. There is, however, no doubt that secondary invasion of septic poison, when the abscess is opened from the vagina, is much more difficult to prevent than invasion into the abscess from the abdominal opening. It is only in this way that we can account for the difference in the course of the after-treatment of peri-uterine abscesses opened through the vagina and through the abdominal cavity; a difference that Lawson Tait rightly calls attention to as being decidedly in favor of the abdominal operation. Here the abscess closes more quickly, and the course of the after-treatment is much less febrile than in the vaginal operation.

Sometimes a peri-uterine abscess will point into the rectum, sufficiently low down to permit of an opening here. It does not seem probable that the access from the rectum will be very promising, as effective drainage is next to impossible; but the cases of cure by spontaneous opening into the rectum evidently make an operation here permissible, and perhaps advisable, but only as a trial. If the abscess does not retract within a reasonable time, other measures must be resorted to.

It is needless to state that if a parametritic abscess points anywhere along the iliac fossa, it should be opened and drained from this point; but this does not belong to the subject of to-night, as he desired to call attention only to strictly circum-uterine abscesses, which can only be reached from the vagina or from the supra-pubic region.

When a circum-uterine abscess does not point downward, and, in fact, does not point anywhere, it is then the surgeon's task to find the safest way into the abscess through a smaller or larger amount of surrounding tissues. He first considered the vaginal operation: When so eminent an authority as Schröder, of Berlin, advocates this method of reaching a high peri-uterine abscess there must be cases in which this operation is advisable. From a general point of view an extro-peritoneal outlet of the abscess through the vagina would seem to be safer than laparotomy, upon the same grounds as a vaginal hysterectomy is safer than Freund's abdominal hysterectomy, and Schröder's successful operation, already mentioned, vouches for the method.

At the same time Dr. Fenger firmly agreed with Lawson Tait, that there are some grave objections to the vaginal operation. In the first place, a high-seated peri-uterine abscess is difficult to reach. It is difficult to work with safety two or three inches above the introitus of the vagina, in tissues that are immovable, and where the parts cannot be drawn down toward the operator, These difficulties are, of course, of less importance in the hands of an operator like Schröder, but increase in significance for less experienced surgeons. But the operation through the vagina is more or less an operation in the dark. We may be dissecting up along the posterior surface of the neck of the uterus, and may open into recesses of the peritoneal cavity between the abscess and the uterus. Further, it might be easy in this place to open into the rectum. Another danger, especially in abscesses between the two layers of the lateral ligament, might easily arise from the rupture of the large uterine vessels running in the wall of the sac. It would be exceedingly difficult, and he should say next to impossible, under such circumstances, to secure and ligate these vessels, the point of ligation being so high up, the working space so small, and the tissues so immovable.

All these objections and dangers we do not encounter in laparotomy. We can see distinctly, and recognize with our own eyes, every particle of tissue we have to divide; the large uterine vessels, if divided, can easily be taken up and ligated. There is no risk of having any communication between the abscess and the peritoneal cavity, which we cannot either close up or drain. If the laparotomy last longer, and gives more technical work to the surgeon, it seemed to him that these objections are fully balanced by the advantage of not being obliged to work in the dark, of not having to battle with enemies that we cannot see, and consequently cannot guard against.

But these are not the only advantages of laparotomy,

as compared with the vaginal operation. The free access to the whole interior of the abscess cavity has also to be taken into account. By laparotomy, the abscess is laid open to about the same extent as a tubercular peri-articular abscess. We can examine the whole interior of such a cavity, and scrape off, or remove by other means, whatever objectionable material we may find, cheesy matter, tuberculous tissue, fungoid granulations—since we can see clearly every place where the instrument is applied, without any danger of going through the abscess wall into any surrounding cavity or organ. It is more than possible that this free access to the abscess wall has something to do with the speedy recovery subsequent to laparotomy, as compared with the vaginal operation.[1] But, of course, there will always be connected with laparotomy the inherited dread of opening that ominous peritoneal cavity. Modern surgery, however, is making steady progress in diminishing these dangers. Thus, the dread, as well as the safety of the patient will, to a great extent, rest in or depend upon the care and skill of the operator.

Dr. W. H. Byford did not wish to comment upon the contents of the paper, further than to express himself in reference to the mode of operating adopted in consultation with the gentlemen mentioned. A large number of pelvic abscesses can be managed through the rectum with more facility and safety than any other medium of approach to the deep-seated portions of the pelvic cavity. He did not know whether there are any cases situated wholly in the pelvic cavity but that can be reached, opened and evacuated through the rectum. It may not always be the most eligible direction to approach collections of pus. In instances in which the pus is making its way toward the vagina, and fluctuation can be felt through the vaginal walls, it ought to be evacuated through that canal; but when the point of discharge is not thus indicated, the exploration is most easily made through the rectum; and all chronic cases that have already commenced to discharge into the rectum can and ought to be treated from the cavity of that viscus. He would make no exception, however high the opening might be, so it was within the pelvic cavity. By proper preparation the whole length of the rectum can be reached, from the sphincter to the promontory of the sacrum, and from any part of it the pus evacuated, the pyogenic cavity explored and drainage and irrigation safely and securely accomplished. He believes the dangers of this mode of operating to be incomparably less than by abdominal section; and the other results of the operation—such as drainage and disinfection—more complete.

To effect the objects mentioned, the sphincter should be stretched to laceration, and until there is no tendency to immediate contractions of the anal opening, and till it can be dilated to the full extent of the rectal cavity. Thus thoroughly opened, the whole extent of the rectum can be explored with great facility, and often by means of dilators can be seen, and instruments used under the eye of the operator. If the pus is to be sought after, palpation with the fingers becomes easy and satisfactory; if it is being evacuated, the orifice seen or felt and such treatment as is desired applied. He very much prefers stretching and tearing for the purpose of increasing the size of the orifice to the use of cutting instruments. The opening will not so readily close, and there will not be so much hæmorrhage. In effecting the discharge of the pus, we should remember that the reason why the pyogenic cavity is at no time wholly obliterated is because there are irregular loculi or pockets so situated that they do not empty themselves. The opening should therefore be made large; the parts torn by the fingers until this inferior margin of the opening is as far below the main body of the cavity as practicable. With the fingers the interior bands and partitions should be completely broken down, and the interior of the cavity rendered as nearly symmetrical as possible. This will enable the whole of the contents of the cavity to escape by means of gravity, and the fluids used in irrigation find their way out without difficulty. In addition to the shaping of the cavity, the large granulations—generally so abundant—should be scraped away by the fingers or by a dull curette, thus freshening up the lining membrane of the pyogenic cavity, and converting it from a state of indolent ulceration to one disposed to heal. This process of curetting also produces a change in the capillary circulation that makes nutritive processes more salutary. Often in very indolent cases the sphincter will recover contractile power to such a degree as to require one or more repetitions of the operation. The same thing may be said of the margin of the orifice in the intestine. We will be obliged to enlarge it and treat the cavity as before.

In the case narrated in the paper, the action of the sulphate of copper seemed most useful, and contributed the last influence necessary to the cure. He has said nothing about the more common items of treatment, such as irrigation, disinfection and stimulation. His intention is to show the facility with which, in many instances, these purulent collections can be reached and treated by dilating and distending the rectum, and the comparative safety of such proceedings.

Dr. E. C. Dudley said that the experience of Dr. Byford and others in the treatment of pelvic abscess by this operation must be considered as proving the great value of the operation in cases in which the abscess can be easily approached and thoroughly drained by dilatation of a sinus between the abscess-cavity and the rectum. It would, however, appear on general principles, that sufficiently free and long continued drainage would in many cases be almost unattainable, and that an abscess-cavity left thus to heal must often be the starting-point of sinuses formed by the uncontrolled burrowing of pus in many directions. The almost inevitable invasion of the abscess cavity by fæcal matter is clearly a serious factor in connection with the history of these cases. The great mortality from pelvic abscesses opening spontaneously into the bowel demonstrates the inability of nature to provide for adequate drainage. Whatever question, therefore, we may raise relative to the advanced position of Dr. Wm. H. Byford, who, if prac-

[1] Lawson Tait, op. cit.

ticable, would prefer to open a pelvic abscess through the rectum—even in those cases in which nature has not anticipated him—there can be no question about the propriety of enlarging and rendering more effective an opening already formed. He regretted that the essayist had marred a most admirable contribution by the sweeping statement that in all cases in which drainage has been spontaneously established through the rectum Lawson Tait's operation is contraindicated. Nor can he imagine from what premises he has formed the conclusion that Tait's operation prevents closure of the sinus between the abscess-cavity and the rectum. The question naturally arises, whether Tait's operation might not in such cases fulfil a well recognized surgical indication by establishing a free counter-opening for an abscess which otherwise might refuse to close on account of imperfect drainage and on account of its forming a blind sac for the retention of fæcal matter. To a larger number of recognized authorities, who deem an opening into the rectum, whether produced by nature or by art, a grave misfortune, the query would naturally arise whether such an opening ought not to be supplemented by a counter-opening, which would bring the draining and cleansing of the abscess-cavity within the easy and absolute control of the surgeon. Furthermore, in view of the decided mortality which attends the spontaneous opening of pelvic abscesses into the rectum, and in view of the almost uniformly successful results recorded in the statistics of Tait's operation already published by Mr. Tait and others, and in view of a very generally accepted rule that the operator, in opening a pelvic abscess, should strive to keep out of the rectum, he does not think a statement that the rectum is to be preferred as the site of a primary operation ought to go on the records of this Society unchallenged.

DR. J. T. JELKS (present by invitation) thought a great mistake was made in waiting too long before operating in cases of chronic pelvic abscess.

DR. PHILIP ADOLPHUS thought the paper was beyond the pale of criticism. When the general symptoms indicated a collection of pus, the cavity should be searched for. If a cavity containing serum was found, an operation was contraindicated. If the cavity contained pus, it should be evacuated.

DR. H. T. BYFORD, in closing the discussion, objected to the quotation of Lawson Tait's statistical triumphs in this connection. In the last edition of Tait's *Diseases of the Ovaries*, abdominal section is recommended for those pelvic abscesses only that cannot be successfully evacuated from below. They are generally such as are situated high up, and do not point early in the vagina or rectum, or they are suppurating hæmatoceles. The statement that the recto-abdominal fistula, left after abdominal section for a pelvic abscess that has already discharged into the rectum, would heal readily, like any artificial anus, is not borne out by facts. Fistulæ connecting the rectum with the external air have seldom healed, when left to themselves, before a long period of time had elapsed. Operative measures cannot (in these cases) be resorted to, on account of the length, situation and relations of the fistulous track.

GYNÆCOLOGICAL SOCIETY OF BOSTON.

Stated Meeting, December 10, 1885.

THE PRESIDENT, HENRY O. MARCY, M.D., IN THE CHAIR.

H. J. HARRIMAN, M.D., SECRETARY.

DR. I. C. FOX, of Lowell, presented

A SPECIMEN OF MULTILOCULAR OVARIAN CYST, LARGELY SOLID,

which he had removed a few hours before. The tumor was of six months growth, and was diagnosed as a solid tumor. Dr. Fox was of the opinion, however, that it was ovarian and cystic. The operation verified this latter diagnosis. Patient was 47 years old. But slight hæmorrhage followed the operation.

DR. WARNER asked Dr. Fox the grounds upon which he had based his opinion that the tumor was ovarian and cystic.

DR. FOX, in reply, said that in this case the uterus was of normal depth and was movable. In fibroids he almost invariably found that the uterus was increased in depth and more or less fixed. Dr. Fox also cited a case of ovarian tumor of nine months growth which he had removed. Four weeks prior to the operation excessive pain and vomiting suddenly came on. Diagnosis of twist in the pedicle was made and verified by the operation. The tumor was covered with lymph from inflammatory action, and was discolored and almost gangrenous from interference with its circulation. Recovery.

The paper of the evening, by DR. A. MARTIN, of Berlin, on

THE TREATMENT OF CICATRICES IN THE COLLUM UTERI AND IN THE ROOF OF THE VAGINA,

(see page 198) was read by Dr. C. W. Cushing, who also showed microscopical sections illustrating the pathological conditions of which the paper treated.

DR. WARNER did not fully agree with the sentiments so ably set forth in Dr. Martin's paper. He felt that the tendency of modern gynecologists is to exclude all treatment except operative measures. At least many surgeons seemed to neglect all constitutional and mild local treatment in favor of the knife, ignoring and having no faith in drugs. If this tendency becomes general the physician who is not a surgeon will have little to do except to be a looker-on in the practice of gynecology, while in reality more can be done with drugs in the way of local and constitutional treatment than can be accomplished with the knife. He asked the gentlemen present what had been their experience in regard to the operation for repairing rents and cicatrices of the cervix, as far as concerned relief of symptoms previously complained of. As far as he knew but few had been relieved by operation, as practiced here, of any of the symptoms of which they suffered. Agreeing with Dr. Martin that the rent was not of importance, nor yet the cicatrix without a diseased condition of the cervical mucous membrane, he insisted that such diseased condition with the accompanying erosion and eversion of the cervical lips is caused by an irritating discharge coming from the

cavity of the body of the uterus. Unless the disease of the fundus is cured, and the discharge stopped, it will do no real good to sew up the cervix. If the disease of the fundus with its acrid secretion is cured, however, the repair of the cervix is unnecessary, as the erosions can be healed, the eversion diminishes, and the patient gets practically well. Dr. Warner recognizes the wisdom of Dr. Martin in attacking the disease of the fundus by a thorough curetting at the time of the operation, which, for as skilful an operator as Dr. Martin, and in his own well-appointed hospital, is doubtless a good treatment. If Dr. Martin, however, rested at the curetting without repairing or amputating the cervix, he would find that the patient could be healed without further operation.

Dr. Warner insisted that hereabouts, however, many gynecologists practiced operations for repairing the cervix without attacking the disease of the body, and that, perhaps from lack of skill and advantages of Dr. Martin. He had known of many bad cases of cellulitis, etc., caused by the operation without cure of the disease. He playfully likened such incomplete treatment to excision of a section of the eroded upper lip in boys who do not keep their noses clean, and thought the latter operation not countenanced by surgeons.

In answer to a question as to the proper treatment Dr. Martin said that for curing the endometritis he was not able, in a few minutes, to gives rules covering all cases, as it was, above all, essential to consider the circumstances of each case; in a general way he relied largely on a proper regulation of the functions of the intestines and liver, and locally in the judicious use of iodine, acid carbolic, or even, in some cases, of acid nitrate of mercury. As for erosions and eversions, the latter are usually kept up by cysts in or under the surface, sometimes pretty deep; these must be punctured and then the erosions heal easily under stimulating or sometimes escharotic applications, swelling disappears and the patient gets well, provided the endometritis has been cured, and not otherwise. For the acrid discharge from the fundus is strong enough to cause not only erosions of the cervix, but also of the vagina, and in bad cases of the labia, thighs and abdomen; removing this cause the effects are easily cured.

Dr. E. W. Cushing defended the views which Dr. Martin had set forth in his paper in regard to the pathology of these cases. He asserted that there was no real erosion of the epithelium in those cases where the epithelium seemed to be absent, but that the gland tissue of the cervix which is normally limited to the mucous membrane or its immediately subjacent layers, increases to such an extent as to invade the other tissues. This process sometimes goes on to such an extent as to lead to glandular degeneration of the entire thickness of the cervix. In such cases he maintained that Dr. Martin's operation was the only one which promised success—showing the hopelessness of the ordinary stimulating treatment often employed. Dr. Cushing exhibited several sections which, under the microscope, illustrated the pathology of these cases; he also showed sections of the pieces which Dr. Martin had removed from the lips of the cervix. He also showed the instruments with which Dr. M. operates, and by reference to the text-book of the latter, which he brought with him, and by figures on the board, explained the details of position, etc., and the manner of employing antiseptics and enforcing surgical cleanliness, which enable Dr. Martin to get such results. Dr. Cushing also referred to the danger that the glands, which grew with such rapidity, invading tissues where they do not belong, may in chronic cases begin to increase at such a rate as to be really malignant growths.

Dr. W. S. Brown thought the paper a valuable one, but feared that too much emphasis was put upon the *surgical* treatment of these cases. He did not agree with those doctors who do so much surgery. In his hands the majority of these cases yield to milder measures, such as thoroughly scraping the affected parts by means of the dull or sharp curette. This method of treatment had yielded better results than local applications of carbolic acid or iodine. In some cases, however, excision is the only efficient treatment. When minute cysts are present in the cervix they must be punctured. Proper constitutional treatment is of great importance and should never be overlooked.

Dr. Marcy said that twenty years ago in the Rotunda Hospital, at Dublin, the routine treatment of these cases consisted of applications of nitrate of silver in strength varying from 20–40 grs. per ℥i. This treatment of these lesions by local applications was slow and painful, and the profession has drifted into the surgical treatment of these cases.

FOREIGN CORRESPONDENCE.

LETTER FROM VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Puerperal Fever—Statistics of the Lying-in Clinic—Laceration of the Perineum—The Enthusiasm in Austria over the Congress.

In the Vienna school puerperal fever is known as septic infection, depending (1) upon the local lesion; (2) the infection of these local lesions. Then follow: (1) high fever and inflammation of the genitalia; (2 peritonitis, or pyæmia. There are three varieties recognized. *First*, Puerperal peritonitis, or puerperal endometritis, with a symptomatology of fever, unclean lochia, meteorismus, vomitus, and peritonitis. Post-mortem section shows *endometritis consecutiva*, salpingitis and *peritonitis purulenta*, with exudations. *Second.* Puerperal metro-phlebitis or pyæmia without peritonitis, the septic virus passing through the placental insections to the uterine veins. As symptoms we have: High fever, chills, torpor, subinvolution of the uterus. The abdomen is flaccid and painless on percussion. There may be icterus and metastatic phlegmon. *Third.* Peritonitis plus pyæmia, or *lymphangitis uteri*, or *phlegmona pelvis septica.*

The treatment is local when a woman begins to have fever on the second day *post partum.* The ex-

ternal genitals and vagina are washed with a 1-2 per cent. carbolized water, or with a 1-5000 sublimate solution. When operations have taken place, and the lochia are pathological, and there is high fever, the uterus is irrigated, a glass tube being used. Iodoform bacilli, containg 5-6 grms. of iodoform, are placed in the uterus. The formula used is:

℞ Iod. pulv..... 18 parts.
Amyl. puræ,
Glycerinæ,
Gum arabic.....aa 2 "

Make 3 bacilli 5-6 ctm. long. Ice applications to the abdomen are used in *peritonitis incipiens*. Ergot is used internally. The antipyretics used are quinine, 1-2 grms. daily; sod. salicyl., 3-4 grms. daily; antipyrin, 1-2 grms. daily. If these do not avail, the cold bath is resorted to. Alcohol is used freely in pyæmia, but *never* in peritonitis. In incipient peritonitis the following treatment obtains: Ice pills; ice cataplasms on abdomen; opium by the rectum, and quinine by rectum. In puerperal ulcers local applications of iodoform, or of iodol (which is expensive but devoid of odor), are resorted to. Salicylic amylum (1 part of salicylic acid to 5 parts of amylum), has also its merits. It has been found that the cases of puerperal metro-phlebitis, although attended with metastatic transference of the poison, forming abscesses and involving the lungs themselves, tend, in a large per centage of cases, to recovery; while those cases of puerperal peritonitis almost always end fatally. Women seemingly moribund, in whom the whole system is poisoned, begin to recover as soon as elaborate metastatic action obtains. These patients are given alcohol very freely.

Dr. Emil Ehrendorfer (Ueber antiseptische—locale—Behandlung in der Gebürtshülfe, *Archiv. f. Gynäk.*, Bd. xxvii, heft 2), writing of the statistics of the Lying-in Clinic here, for the years 1882, 1883 and 1884. has furnished us with some very interesting data. In 1882 the puerperal mortality was 0.51 per cent; in 1883 0.33, per cent.; and in 1884 it was 0.32 per cent.—this including three cases of Cæsarean section. Puerperal fever in 1882 occurred in 4.31 per cent.; in 1883, in 3.59 per cent.; and in 1884, in 3.08 per cent., while other pathological diseases resultant upon labor fell from 6.17 per cent. in 1882 to 4.87 per cent. in 1884; and all this from a strict attention to antiseptics and cleanliness in every possible detail. In these matters few people have a riper experience than Dr. Ehrendorfer. As first assistant to Prof. Spaeth he is responsible every year for about 3000 labors.

One is very much struck here with the rarity of perineal lacerations. The matter becomes plain, however, when one sees with what tact the perineum is handled during labor. The woman rests on her back until the head presses upon the vulva, then she is turned upon her left side, with the buttocks resting upon the edge of the bed, the legs well drawn up and kept apart either with a pillow or by an assistant. The nurse sits on the right side of the bed, with her back to the face of the patient; the left hand is passed over the right thigh of the patient, and manipulates the child's head; the free right hand of the nurse keeps the perineum moist with carbolized water, and assists the left hand. The patient is enjoined not to bear down, and the head is kept back forcibly, so as to prevent a too sudden birth. The fingers of the left hand are occasionally run around the presenting part of the fœtal head, just inside the labia, or the head is gently moved toward the symphysis by a well directed action of the left hand. The main thing is to keep the perineum moist and to keep the head back. If there is thinning of the perineum, and a danger of laceration either lateral or bilateral, episiotomy is resorted to. If there be immediate danger of a central rupture, an incision is made from the posterior labial commissure, creating a laceration of the second degree, which is operated on immediately after labor. Lacerations of the first and second degree, and even sometimes of the third degree, are operated on immediately after the birth of the child, except when the woman's condition contra-indicates such a procedure. For all minor lacerations serres-fines are used. I have seen several cases of hydramnios lately, and apart from other methods, the curves made with the women in different positions are quite sufficient to distinguish this condition from others which may simulate it.

The enthusiasm here over the Congress grows daily, and I am quite sure that Vienna will send a large delegation to Washington. I hope to be able to establish equal interest in Buda Pest and Munich. I trust that the Executive Committee will publish full details, list of officers, modes of transit, arrangements for finding lodgings upon arrival, with the rules governing scientific papers to be read, in the leading medical journals of all the large European capitals. At the meeting of the German Medical Society in Strassburg last September, members of the local committee met each train upon its arrival. Large signs were placed in the station pointed towards a room in the station where the delegates could receive addresses of boarding-houses or hotels, together with prices and all necessary details. Similar arrangements should be made at both stations in Washington, so that every member, upon arriving, could be directed at once to such a place as he desired. The Secretary-General of the Congress could also have assistants at the station, so that members could register immediately upon arrival, and receive all necessary instruction. H. R. B.

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

The Charity Organization Society—Hydrophobia and its Treament—Dr. Edson's Report—Gift to the College of Physicians and Surgeons — Death of "Aunty" Dubois—Permanent Drainage in Ascites—The State Medical Society; Officers for the Year.

The fifth annual meeting of that admirable body, the Charity Organization Society, was held at Association Hall on February 1. It has done a vast amount of good by caring for the wants of the de-

serving poor, providing employment for those able to work, exposing impostors, suppressing street begging and discouraging indiscriminate alms-giving. The Society now has on file 100,661 reports, containing the names and histories of 71,332 families—equivalent to 285,000 persons; and one great benefit which it offers to the various medical charities is that by means of its well-organized investigations these institutions can ascertain whether the patients applying to them are really deserving of gratuitous treatment or whether they are able to pay for medical attendance. As long, however, as an institution like the New York Hospital makes a charge of one dollar a month for each patient treated in its outdoor department—thus making these people feel that they are not charity patients at all, and directly robbing the profession every year of large sums which they would otherwise receive from a class perfectly able to pay a fair compensation for medical services—there is perhaps little chance of accomplishing much in the way of reform as regards the abuse of medical charity. On the occasion in question, among the speakers was the Rev. Dr. Wayland, of Philadelphia, who made a striking comparison of "the old charity and the new:" The old charity, he said, saw a woman with a diseased child on the sidewalk, and gave her money. As a result, in a few days there was a premium for diseased children on the street. The new charity, as represented in this Society, gave the sick child into careful hands, put the mother in jail, and suppressed a nuisance. The Charity Organization Society now has 1,084 members, 483 of whom have been received in 1885.

At a recent meeting of the Clinical Society of the New York Post-graduate Medical School and Hospital, a discussion on *Hydrophobia and its Treatment* constituted the order of the evening, and in the course of it Dr. W. A. Hammond said that when proper precautions had been taken within a reasonable time after a bite by a rabid dog, he had never known the disease to occur. Many cases of persons bitten by dogs supposed to be mad had come under his observation, and the first thing that he did under the circumstances was to take steps to ascertain, if possible, whether the dog really had rabies or not. If he had, or there was any doubt about the matter, he excised or cauterized the edges of the wound, first having applied a cupping glass to the part, or caused the patient or some one else to apply his lips to it and suck out the poison; the virus being innocuous unless there was some abrasion of the mucous membrane of the mouth. He also applied ligatures in cases where this was practicable. It had always been his opinion that the disease could be communicated to a human being only by means of the saliva, and thereore he was inclined to doubt the efficacy of the process practised by M. Pasteur; but still he did not feel in a position either to deny or affirm the value of the alleged discovery until further investigations of the subject had been made.

The statistics of reported deaths from hydrophobia in this city during the last fifteen years are as follows: In 1870, three; in 1871, seven; in 1872, six; in 1874, five; in 1876, five; in 1877, four; in 1878, 2; in 1881, three; in 1882, two; in 1883, one; in 1884, one; and in 1885, one, occurring in the month of October.

The annual report of Dr. Cyrus Edson, Chief of the Second Sanitary Division, shows that during the year 1885, 7,000 specimens of milk were examined, and 1,701 quarts of milk destroyed by the officers of the Board of Health. There was also ordered destroyed 72,700 pounds of candy, 540 pounds of head cheese, 546 pounds of poultry, 37,905 pounds of canned goods, 5,160 pounds of cheese, 4,000 pounds of pickles, 4,100 pounds of coffee, 790,410 pounds of meat, and 212,000 pounds of fruit. The trial of Gen. Alexander Shaler on a charge of bribery in connection with the selection and purchase of armory sites for the city, came off on the 26th and 27th of January; but the jury were unable to agree, and a new trial will be held at the next term of the Court of Oyer and Terminer, which begins February 15. It is stated that the jury stood ten for conviction and two for acquittal.

Mrs. William D. Sloane, one of the daughters of the late Mr. Vanderbilt, has emulated her father's generosity to the College of Physicians and Surgeons of this city by the gift and endowment, in connection with her husband, of a free maternity hospital, to be conducted under the auspices of that institution. It will be a handsome building of brick and terra cotta, in the new college grounds, and no pains will be spared to make it a model structure of the kind. Although the maternity will be under the control of the Faculty of the College of Physicians and Surgeons, its business arrangements are to be in charge of a distinct board of managers, consisting of five gentlemen. The first board will consist of the President of the College, Dr. John C. Dalton, *ex officio;* Mr. Wm. D. Sloane, representing the donors; Mr. Cornelius Vanderbilt, representing the College board of trustees, and Professors James W. McLane and Francis Delafield, representing the College Faculty.

"Aunty" Dubois, a colored woman, believed to have been the oldest person in the State of New York, has just died at Newburgh on the Hudson, at the alleged age of one hundred and ten years. She was born a slave in Ulster County, N. Y., and was for many years the property of one of the Ulster County Dubois families; being freed at the time when the last few remaining slaves in the State were emancipated. One of the venerable negress's sons, who resides in this city, is said to look even older than his mother did at the time of her death.

At a meeting of the Academy of Medicine held on February 4, Dr. M. A. Starr read a paper on *The Intra-Cerebral Tracts—their Physiology, and its bearing on the Diagnosis of Lesions of the Centrum Semiovale;* after which Dr. A. G. Caillé read one on *Permanent Drainage in Ascites.* Dr. Caillé related two cases of cirrhosis of the liver with marked ascites, in which he had inserted a drainage-tube into the peritoneal cavity at the linea alba, with the result of affording great relief of all the distressing and dangerous symptoms, and probably prolonging life for a considerable period. In one case an autopsy could not be secured, but in the other one was made; when it was found that there was not the slightest indica-

tion of peritonitis at the point where the fistula was made. No internal treatment was used in these cases other than a careful regulation of the diet, and the administration of acid phosphate.

The President, Dr. A. Jacobi, in commenting on the paper, remarked that the procedure resorted to by Dr. Caillé was an imitation of the method sometimes employed by nature in these cases. It was not very uncommon to see in extensive ascites a spontaneous fistula established at the linea alba, or, more frequently, at the umbilicus, and he related an instance of this kind which had not long since been under his observation at the German Hospital. He also related a case in which, after hearing of Dr. Caillé's plan of procedure, he had inserted a drainage-tube in the same way through an artificial opening in the abdominal walls; and he said that he considered this likely to form a very valuable addition to our present modes of treatment. As to the medicinal treatment of cirrhosis of the liver, there was one agent in which he had by experience learned to place considerable confidence in a certain proportion of cases, and that was mercury. It was well known that in many instances the interstitial hepatitis was only partial, instead of involving the entire extent of the organ, just as was the case sometimes in interstitial nephritis, myelitis and encephalitis. In affecfections of this kind it was always a source of congratulation to the practitioner to find they were of syphilitic origin, on account of the prospect that relief would be afforded by appropriate treatment; but he had now become satisfied that in non-syphilitic cases also, if the trouble did not involve too large a portion of the organ, there was often a fair chance of curing the patient by a course of mercurial treatment. He had been taught to look with utter abhorrence upon the use of mercury, and for many years he never employed it at all in any form except in syphilitic cases, on account of its supposed injurious effects upon the system. But during the last ten or fifteen years he had resorted to its administration with very good effect in the class of cases referred to. It was necessary to select some preparation which could be given in small doses and kept up for a prolonged period, and he was in the habit of employing the bichloride. This might be given, largely diluted, in solution, but he preferred the pill form. One-thirtieth of a grain three times a day was about the amount that would usually be required, and the patient should be instructed to use a chlorate of potash wash and carefully watch the condition of his gums.

There has been quite a stirring up of dead bones in the old State Medical Society, which held its annual meeting in Albany on the 2d, 3d and 4th of February, occasioned by the remarkable success and the scientific interest of the first two meetings of the energetic young State Association. Extra efforts are made to secure a full gathering of the clans, and the number of physicians in attendance, as well as of the scientific papers, a fair proportion of which were by men of prominence in the profession, was unusually large. Among the papers was one read by Lawson Tait, of Birmingham, on "Methods of Diagnosis." The President, Dr. Albert Van der Veer, of Albany, delivered the annual address in Assembly Chamber in the Capitol on Wednesday evening, February 3d, taking for his subject "The Water Supply of Cities and Villages," the conclusions arrived at in which are the following: Water needed for domestic purposes should be taken, first, by gravity from mountain streams, lakes or springs; next, if the former is not possible, provided the surroundings are safe and proper in every respect, by the Gang syphon driven wells; next by a system of storage, so arranging the reservoirs that proper aëration can be employed; and, lastly, if necessity compels that it must be taken from sources known to be polluted, then a thorough system of filtration should be resorted to, and the water be as completely oxygenated as possible before distribution.

The following officers were elected for the ensuing year on the last day of the meeting: President, Dr. Wm. S. Ely, of Rochester; Vice-President, Dr. Sol. Van Etten, of Orange county; Secretary, Dr. Wm. Manlins Smith, of Onondaga county; Treasurer, Dr. Charles H. Porter, of Albany. The following honorary members were also elected: Lawson Tait, F.R.C.S., Birmingham, England; Dr. E. N. Bush, of Philadelphia; Dr. James G. Richardson, of Philadelphia; Dr. T. Hansen, of Copenhagen, Denmark.

P. B. P.

"THE STUDY OF MEDICINE AS A MEANS OF EDUCATION."

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—Allow me to say to your numerous readers that the paper on "The Study of Medicine as a means of Education," which you have honored with an editorial criticism, (see JOURNAL of January 9, 1886) was read only in abstract, the original paper being much too long to be read in a limited period of time or to be printed at my own expense. This will account for the apparent disproportion of space given to some features of the subject. Moreover, the indirect method of argument has its disadvantages; but it also has some advantages. As a literary production the essay is certainly defective; and yet I have received several very complimentary letters in relation to it from men in the highest positions in the profession. There are yet a few copies for distribution among those who may be interested in the subject and who may apply to the undersigned.

In this connection permit me to add a word in relation to the origin and mission of the American Academy of Medicine in which the paper was read. It was organized in Philadelphia in 1876, when the State of Pennsylvania was grievously afflicted with fraudulent medical schools; at a time too, when it was impossible to obtain anything more, as a means of protection, than *bogus* medical legislation. Thanks to a daily newspaper, the *Philadelphia Record*, for effecting, by the use of means known only to the secret service of the government, what the profession was not able to do, though several attempts had been made. And thanks to the Illinois State Board of Health for a more systematic exposure of the nefarious traffic in medical diplomas. It was organized,

we say, when there was scarcely a ray of hope for the profession in Pennsylvania; when there were at least 2000 medical practitioners in the State, as is shown by recent registration, who had either no medical degree or had purchased one from these schools; and what we have still to regret, is this, that the greater part of them remain in our midst. It is not too much to say that our legislature, our medical societies, and our medical journals were under the influence of these institutions and classes of practitioners. A large representation of these were always in our legislature, and they assumed to know what were the wants of the professsion and the people. The exposure came, however, and they could no longer face the odium. Other States were passing through a similar experience, but certainly not so shameful.

In the organization of the Academy under these circumstances, it was thought best to require for membership at least one academic degree besides the degree of doctor of medicine. Whether such degrees may be invariably required will depend entirely upon the majority in the Association. It may be truly said that degrees, either literary or medical, have very little signification, as regards mental capacity, education or professional skill. This much, however, may be said in their favor, that they are conferred by independent groups of men representing institutions of learning which have a reputation to maintain. They should certainly not be made the only test for membership in an educated body of men. Those who have passed creditable examinations in the army and navy, and many others, should certainly be admitted.

The Academy would scarcely have a reason for an existence were it not for the wide-spread evils to which we have referred. It can never be more than a help in the profession, and should be welcomed as such. The encouragement of a higher standard in which all its members may join, is its special work; but there is no good reason why any topic pertaining to medicine or to the medical profession should not be discussed in it.

An objection may arise in the mind of some, that the Academy is based upon "classical, scientific, and literary schools" and courses of study in them. This is indeed the fact; but it is also true that our profession is based upon these schools and courses of study whether we recognize it or not. These schools were formed by our fathers, and they simply accepted the experience and judgment of educated men in other countries than ours. It is plain that young men must get their education in these institutions, such as they are, or go without an education. The medical student will never amount to much until he has spent ten or twelve years at very faithful and patient study at something; and I am shut up to the conclusion that he had better spend *half* this time in classical, scientific, and literary schools in laying a good foundation. With the permission of the Editor of THE JOURNAL, I may some day express myself more fully on these topics. Very truly,

R. LOWRY SIBBET, M.D.

Carlisle, Pa., Feb. 11, 1886.

[It must be apparent that we could not give our correspondent credit for that portion of his paper which was not printed; we naturally presumed that we had the entire article before us when we wrote. If the reader will turn to our editorial article in THE JOURNAL of January 9, p. 43 *et seq.*, it will be seen that we have not criticized the objects of the American Academy of Medicine, but the requirement for membership that the applicant must be a graduate of an academic college. It will also be seen that we did not criticize the literary merits of the article, nor can we agree with the author that it is "certainly defective" from a literary point of view. Our whole criticism was leveled at the pernicious doctrine that a man *must* have a *classical* education, and a diploma from a classical college, before he is fit for the study of medicine (or any other profession). Our correspondent's article, as it came to us, contained no mention of the value of "classical, scientific, and literary schools;" it referred to classical schools only. And while it mentioned the value of mathematics and the languages, it contained no reference to the value of scientific studies. It is not entirely correct to say that "classical, scientific, and literary schools . . . . were founded by our fathers." Our fathers and grandfathers founded *classical* schools, but none which deserve the names "scientific" or "literary." Nor have our fathers (or we) "accepted the experience and judgment of educated men in older countries than ours." Their dogmas have been accepted without question, along with much bad judgment, and those of us who pin our faith to classical studies are flying in the face of experience instead of accepting it, for, unfortunately, having experience and being guided by it are very different matters. We will be pleased to have Dr. Sibbet give his views on these topics at any time.—ED.]

THE RECENT MEETING OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—In the issue of your journal for January 30, your Philadelphia correspondent enters somewhat fully into the history of the last business meeting of the Philadelphia County Medical Society. He speaks of "the informally presented candidates." Now in order that it may be fully understood how nominations for delegates from this Society to the American and State Medical Societies are made, I will quote part of Art. XII, Section IV of the By-Laws which reads as follows: "At the stated meeting in June, a committee of five members shall be constituted, two of whom shall be appointed by the President, and the remaining three elected by ballot, which shall be called the nominating committee. At the stated meeting in October, this committee shall present a ticket of candidates for election to the different delegations of the Society."

This committee was constituted in the manner prescribed by the By-Laws, and made their report at the stated meeting of the Society in October, which report was accepted. The "informally presented candidates" which your correspondent speaks of, were nominated in secret caucus by a self-constituted com-

mittee, composed of members unknown to a large part of the Society. This list of "informally presented candidates" had never been seen by those of the Society who were not supposed to be in accord with them until the day of election, when it was read, and by methods heretofore unknown to the Society made to take the place of the ticket proposed by the legally constituted nominating committee.

So anxious was the self-constituted committee to make a ticket to suit their purpose, that they placed in nomination two who were not members of the Society, and twenty-four others who were not eligible as delegates under the By-Laws when the regular nominating committee made their report.

The nominating committee, although constituted in the regular way, was accused of being packed, and of packing the delegates for both the American and State Medical Societies in the interest of the action of the American Medical Association, at its last session in New Orleans. It has been ascertained since the election, that twenty of those nominated in the regular list for the American Medical Association, voted for the "informally presented candidates," twenty for the regular ticket, and five could not be accounted for. This does not look much like a packed ticket in the interest of a faction.

I regard the course pursued by that part of the Society in opposition to the regular ticket as uncalled for and the precedent established a dangerous one for, the best interest of the Society. I will not allude to the great interest taken in the meeting, of which your correspondent speaks, further than to state, that the proceedings were of a character entirely unbecoming to a body of medical men.

MEMBER OF THE NOMINATING COMMITTEE.
Philadelphia, Feb. 11, 1886.

MISCELLANEOUS.

SPHYGMOGRAPHY IN A BALOON.—Ascensions in baloons are now so frequent that we are in possession of many of the physiological phenomena that attend the sudden alteration of pressure. M. Pozzi has taken some tracings with the sphygmograph at a height of 2150 metres. A rapid rise with brief maintenance and rapid descent, disturbed by well-marked dicrotism, were the chief features of the sphygmogram. The peculiarities are, in relation with the lowering of arterial pressure, due to the sudden rarefaction in passing to the higher strata of the atmosphere. They form the counterpart of the experiments of Viveriot with compressed air.—*The Lancet*, Jan. 23, 1886.

TYPE-WRITING AS A HELP TO MEDICAL MEN.—A correspondent of the *British Medical Journal* calls attention to the value of the type-writer as a help to medical men who write: "In these days of high-pressure, when every moment is of the greatest value, and must be made use of, any invention that will tend to save those golden moments will be hailed with satisfaction by those who feel that they have so much to accomplish in their short span of life. One of these time-saving instruments is 'type-writing,' and it has been recognized as a great boon by all who have made use of it. Authors of all kinds require printed proofs of their work before it finally appears as a readable book, and in most instances 'press corrections' form a serious item in the bringing out of a book. But it is especially to the medical man who has papers to prepare for reading at meetings, lectures, etc., short articles to send to medical journals, that this method of copying will commend itself. He can at once see how his written matter will look in print. Papers that are to be read out at a meeting are, we are informed, more easily deciphered when printed in the plain, clear type of the type-writer than even the neatest handwriting."

REVOCATION OF LICENSE FOR UNPROFESSIONAL CONDUCT.—In the case of the State *ex rel.* Chapman *vs.* State Board of Medical Examiners, etc., the Supreme Court of Minnesota have recently held that Sec. 9, c. 125, Gen. Laws 1883, entitled "An Act to regulate the Practice of Medicine in the State of Minnesota," which provides that the "Board of Examiners may refuse certificates to individuals guilty of unprofessional or dishonorable conduct, *and may revoke their certificates for like causes*," is constitutional. The revocation of such certificates is not the exercise of judicial power, and hence may constitutionally be vested in the State Board of Medical Examiners.

M. JULES GUÉRIN, one of the most distinguished physicians and scientists of France, and the founder and for many years the Editor-in-chief of the *Gazette Médicale de Paris*, recently died at the age of 85.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM FEBRUARY 6, 1886, TO FEBRUARY 12, 1886.

Major Henry A. Tilton, Surgeon (Ft. Wayne, Mich.), granted leave of absence for two months, to commence on or about March 1, 1886. S. O. 8, Div. Atlantic, Feb. 9, 1886.)

Major H. E. Brown, Surgeon, granted leave of absence for six months, on surgeon's certificate of disability, with permission to leave the department of the Missouri. (S. O. 29, A. G. O., Feb. 4, 1886.)

Capt. Rob't. H. White, Asst. Surgeon, granted leave of absence for two months, to take effect when his department commander may think proper. (S. O. 29, A. G. O., Feb. 4, 1886.)

Capt. Wm. C. Shannon, Asst. Surgeon, ordered for duty at Ft. Warren, Mass., relieving Asst. Surgeon John M. Banister, who will return to his proper station (Ft. Adams, R. I.). (S. O. 27, Dept. East, Feb. 6, 1886.)

First. Lieut. Guy L. Edie, Asst. Surgeon, ordered for field duty in New Mexico with troop "K," 8th Cav. (S. O. 23. Div. Mo., Feb. 8, 1886.)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING FEBRUARY 13, 1886.

Crawford, M. H., P. A. Surgeon, detached from the "Shenandoah" on the 8th inst. Wait orders.

Rush, C. W., Asst. Surgeon, detached from the "New Hampshire" on the 15th inst., and ordered to U. S. R. Str. "Franklin."